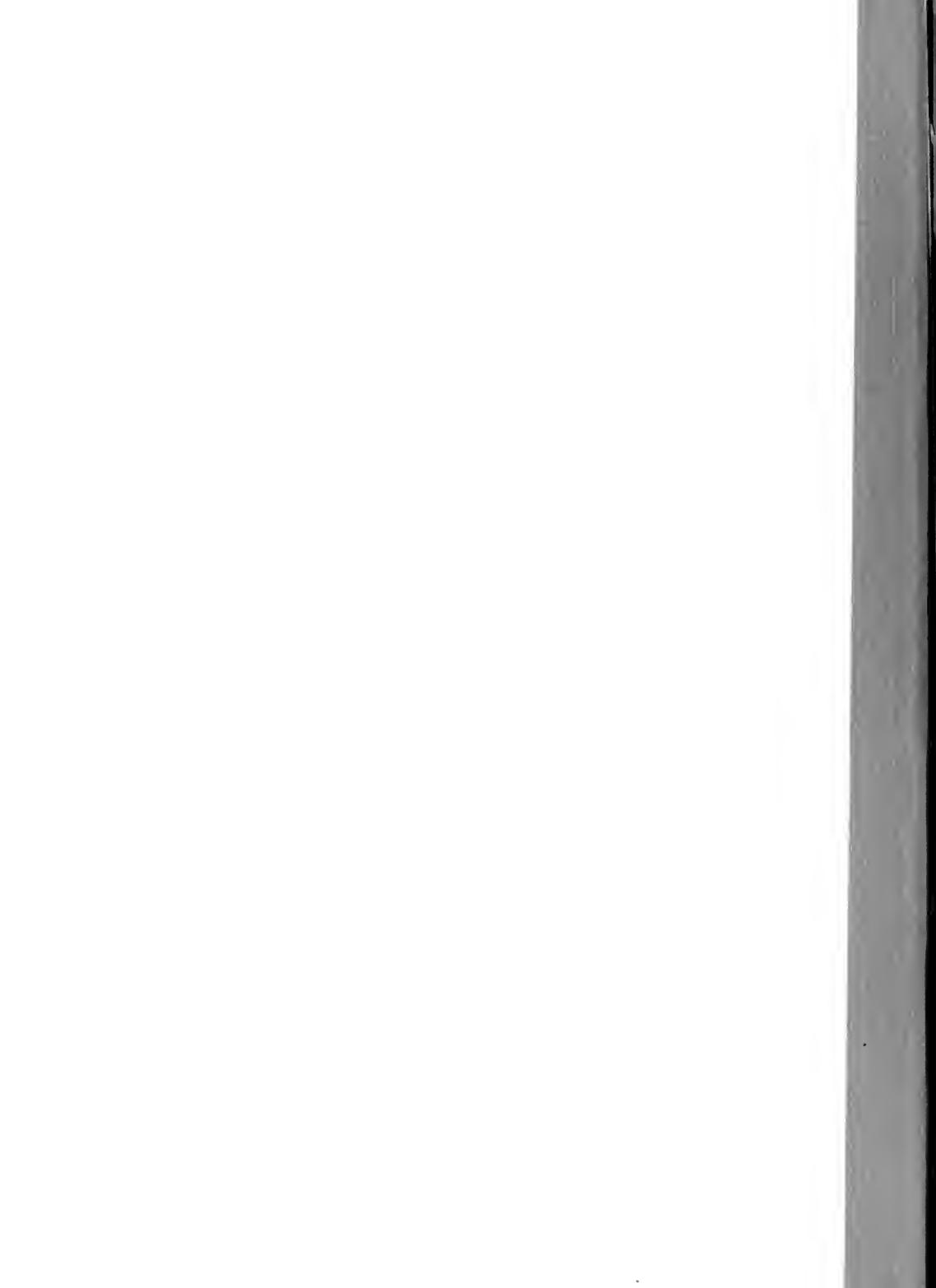


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HYDROLOGIC DATA 1985

Volume I: North Coastal Area



Cordon K. Van Vleck

Secretary for Resources
T Resources Agency

George Deukmejian

Governor
State of California

David N. Kennedy

Director
Department of Water Resources



ON THE COVER The northwest coast, rugged in its grandeur, forms a bulwark to the sea

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Bulletin 130-85

HYDROLOGIC DATA 1985

**Volume I:
North Coastal Area**

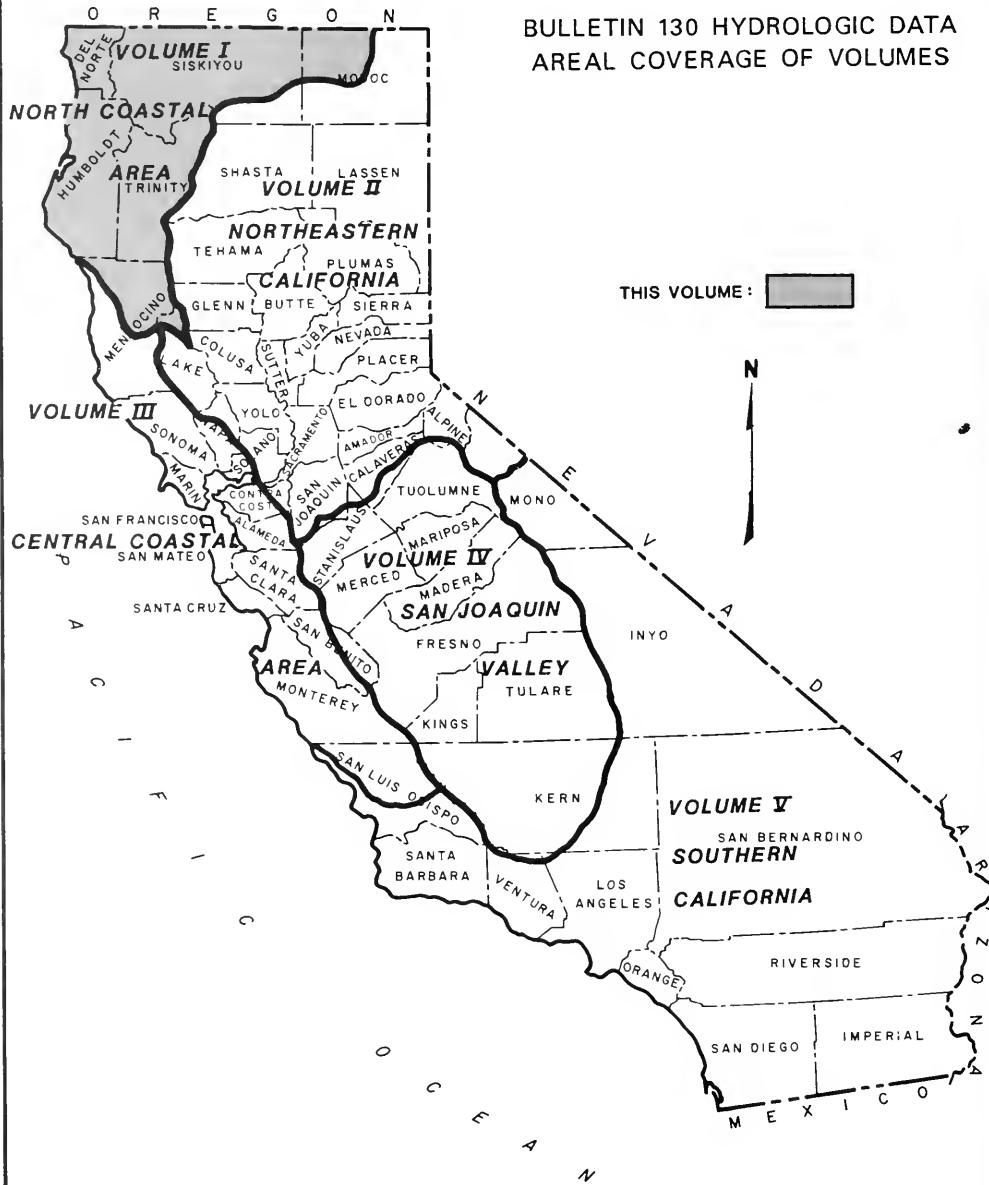
May 1988

**Gordon K. Van Vleck
Secretary for Resources
The Resources
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**George Deukmejian
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**David N. Kennedy
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BULLETIN 130 HYDROLOGIC DATA
AREAL COVERAGE OF VOLUMES



FOREWORD

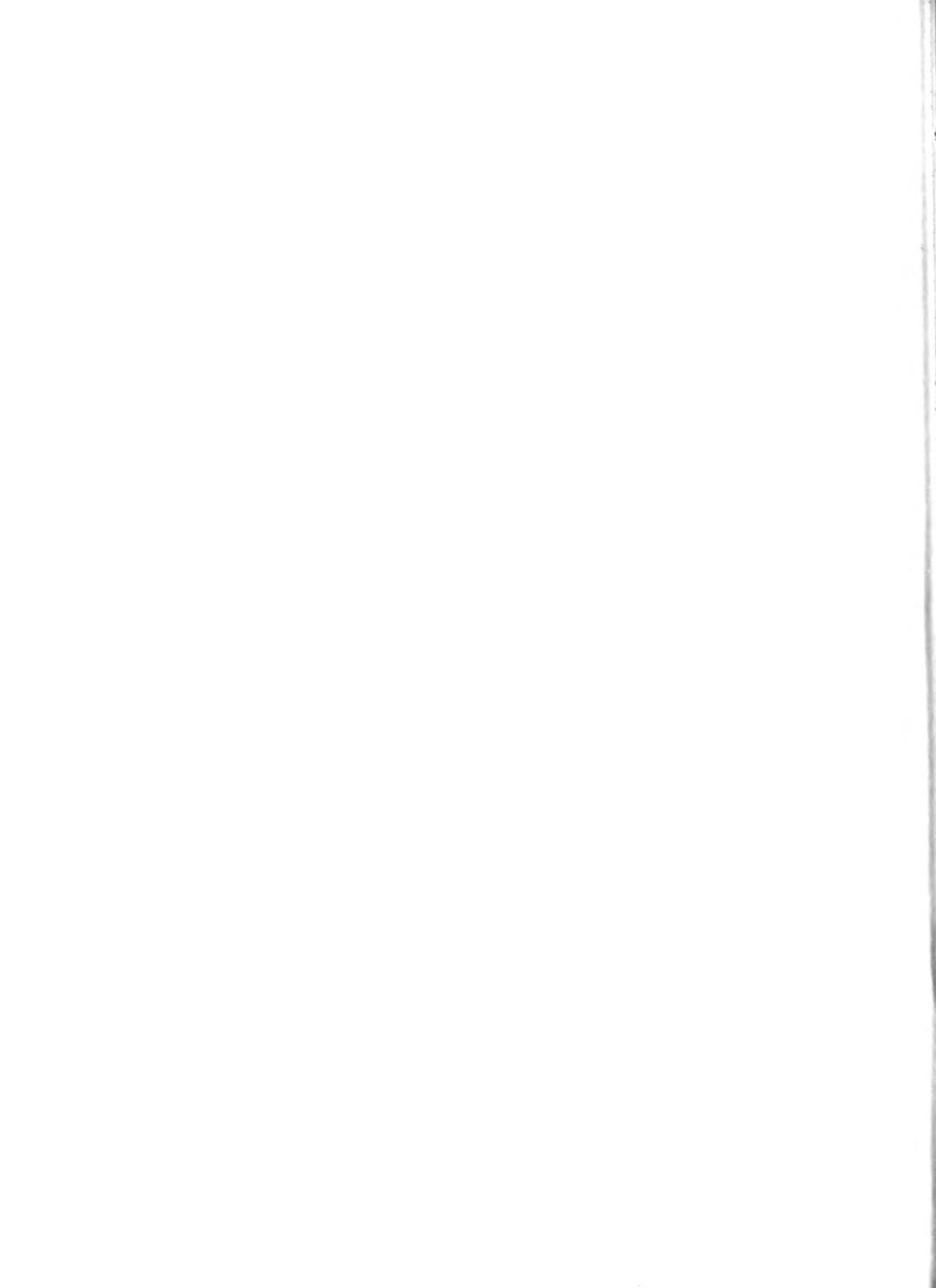
Department of Water Resources' Bulletin 130 series, which presents hydrologic data for California, was published annually from 1963 to 1975. The series was discontinued with the advent of the storage and retrieval of hydrologic data by electronic data processing methods. However, continued interest in the series prompts resumption of publication.

The first in the resumed series is Bulletin 130-85. It contains hydrologic data for the 1985 water year (October 1, 1984 through September 30, 1985). The Bulletin is published in five volumes, each of which reports on one of the five areas of the State delineated on the facing map. This volume covers North Coastal California.

The data collection program of the Department of Water Resources supplements similar activities by other agencies to obtain the information required for effective water resources planning, design and operation of water facilities, and for control and management of the State's water resources.

A handwritten signature in black ink, appearing to read "David N. Kennedy". The signature is fluid and cursive, with a distinct "N" and "D" at the beginning.

David N. Kennedy, Director
Department of Water Resources



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The California Water Commission serves as a policy advisory body to the Director of Water Resources on all California water resources matters. The nine-member citizen commission provides a water resources forum for the people of the State, acts as a liaison between the legislative and executive branches of State Government, and coordinates federal, state, and local water resources efforts.

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Arcata Redwood Company

California State Department of Forestry

California State Department of Parks and Recreation

California State Department of Transportation

City of Weed Fire Department

City of Willets

Fruit Growers Supply Company

National Parks Service

National Weather Service

Pacific Lumber Company

Pacific Power and Light Company

Tule Lake Irrigation District

U. S. Bureau of Indian Affairs

U. S. Bureau of Reclamation

U. S. Forest Service

INTRODUCTION

Bulletin 130-85 presents data on the quantity and quality of California's water resources for the water year October 1, 1984 through September 30, 1985. These data were collected by the Department of Water Resources and other organizations cooperating with the Department. The data are published in five volumes (for areal coverage of volumes see page ii). This volume encompasses North Coastal California. Each volume contains data presented in five appendixes as follows:

Appendix	Subject
A	Precipitation Measurements
B	Surface Water Measurements
C	Surface Water Quality
D	Ground Water Measurements
E	Ground Water Quality

Inquiries regarding the data in this publication should be directed to the offices of the Department of Water Resources listed inside the back cover. The Department's files also contain some data currently not being published, which are also available from these offices.

Additional information about the availability of hydrologic data for California will be found in Department of Water Resources Bulletin 230 series "Index to Sources of Hydrologic Data." This reference series presents an inventory of historic hydrologic data on file with the Department. The most recent issue is Bulletin 230-81. A new edition is in preparation.

Station Location and Identification

The locations of precipitation, surface water measurement and surface water quality data stations are shown on figures included with the respective appendix. Because they are so numerous relative to the figure scale, the locations of individual wells for which depths to ground water and water quality are presented cannot be shown. Instead, figures are presented showing the locations of ground water basins or areas for which well data are listed in this volume.

The principal identifiers for locating hydrologic data stations are (1) station name, (2) station number, (3) latitude and longitude, (4) township, range and section (T,R and S) and (5) county. All are used in this publication, but vary with the type of data and common usage. For example, in ground water the township, range and section serve as the station name and number.

A sixth identifier, an areal one, is employed in this publication. Called the "Areal Designation Code," it is the signature for the Department's Areal Designation System which was developed to relate all water resources data to areal location. The Areal Designation System and Code are described in the following section.

Detailed explanations of the station names and station numbers used for each type of data appear with the appendix in which the data appear.

Latitude is the angular measurement from the equator, north or south, to a point of interest on the earth's surface. Longitude is the angular measurement from the prime meridian (zero point) at Greenwich, England, east or west, to a point of interest on the earth's surface. Latitude and longitude are given in degrees, minutes and seconds. A difference of one second of latitude represents about 100 feet on the ground. In California, a difference of one second of longitude represents about 85 feet on the ground.

Areal Designation Code

The areal designation code (called simply the "areal code") is an alphanumeric which designates a specific hydrologic area in the State.

Areal designation defines hydrologic boundaries throughout California. Under this system, the State is divided into four geographic levels based on topography, hydrology, geology and occasionally, institutional considerations. These are designated, in decreasing size, hydrologic basin (HB), hydrologic unit (HU), hydrologic area (HA) and hydrologic subarea (HSA). The first level, the hydrologic basin, is the land area defined by the highest surrounding ridges such that each separate land area is easily identified as independent of the others. There are 12 hydrologic basins in California and each is identified by a letter (see Figure 1). Each of the hydrologic basins is divided into a hydrologic unit which encompasses a major watershed, two or more small contiguous watersheds having similar characteristics, or a closed drainage area. The third level of subdivision is the hydrologic area and the fourth and smallest breakdown is the hydrologic subarea. The latter usually is a single ground water basin, a definable portion of a larger ground water basin, a tributary area of a stream system, or a definable portion of a large stream tributary.

The code used to identify each subdivision consists of five characters; a letter for the hydrologic basin; two numerics for the hydrologic unit; a letter for the hydrologic area; and a single numeric for the hydrologic subarea; i.e., F-03.A1 designates the Smith River Plain Hydrologic Subarea in this volume.

Because several stations may be located in a given hydrologic subarea, the areal code facilitates locating and comparing nearby stations by precipitation, streamflow, water quality or ground water stations. The areal code is used as an identifier for all stations in this report. The Water Data Information System (WDIS), a computerized data system of the Department of Water Resources, can retrieve all data types by areal code.

Areal codes and boundaries for this volume appear on Figure 2. A map showing all areal codes and boundaries in California as well as a list of all 1,309 subdivisions and their names is available on request.

Agency Code

Reference is made in various tables in this publication to code numbers used to identify agencies collecting data, operating stations, or performing laboratory analysis (Lab). The agencies or laboratories may be identified by matching the tabulated code number with one of the code numbers listed at the beginning of the respective appendix. A complete cross index of agencies and code numbers is available on request.



BASIN CODE LETTER	BASIN NAME	AREAL CODE LETTER
F	NORTH COAST	F
A	SACRAMENTO RIVER	A
G	NORTH LAHONTAN	G
E	SAN FRANCISCO BAY	E
B	SAN JOAQUIN RIVER	B
C	TULARE LAKE	C
Y	SANTA ANA	Y
D	CENTRAL COAST	(T)
V	SOUTH LAHONTAN	(W)
Z	LOS ANGELES	(U)
W	COLORADO RIVER	(X)
X	SAN DIEGO	(Z)

Note: Circled letters show the Areal Code Basin designation where it differs from the Basin Code letter.

Figure 1 HYDROLOGIC BASINS OF CALIFORNIA

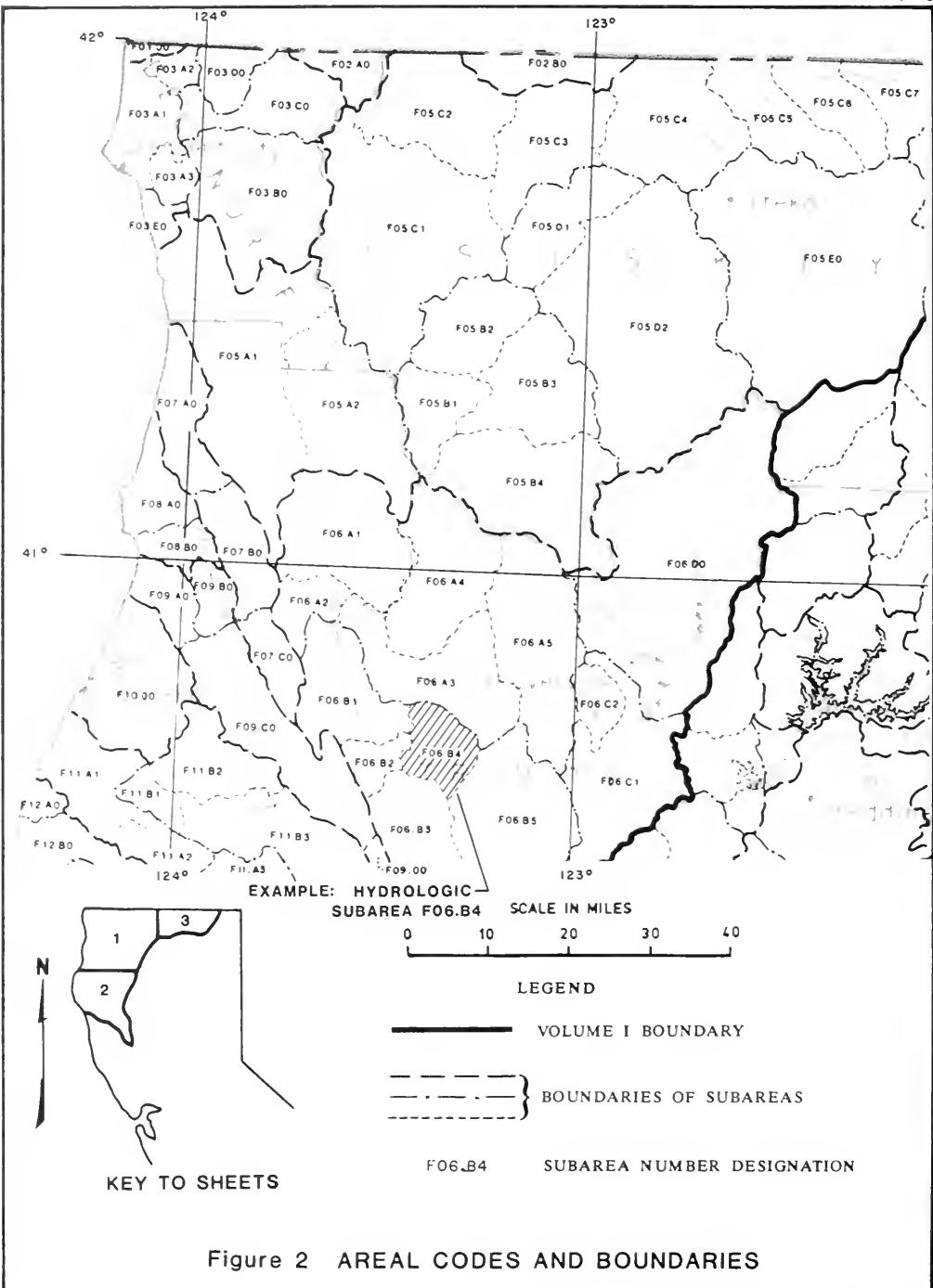
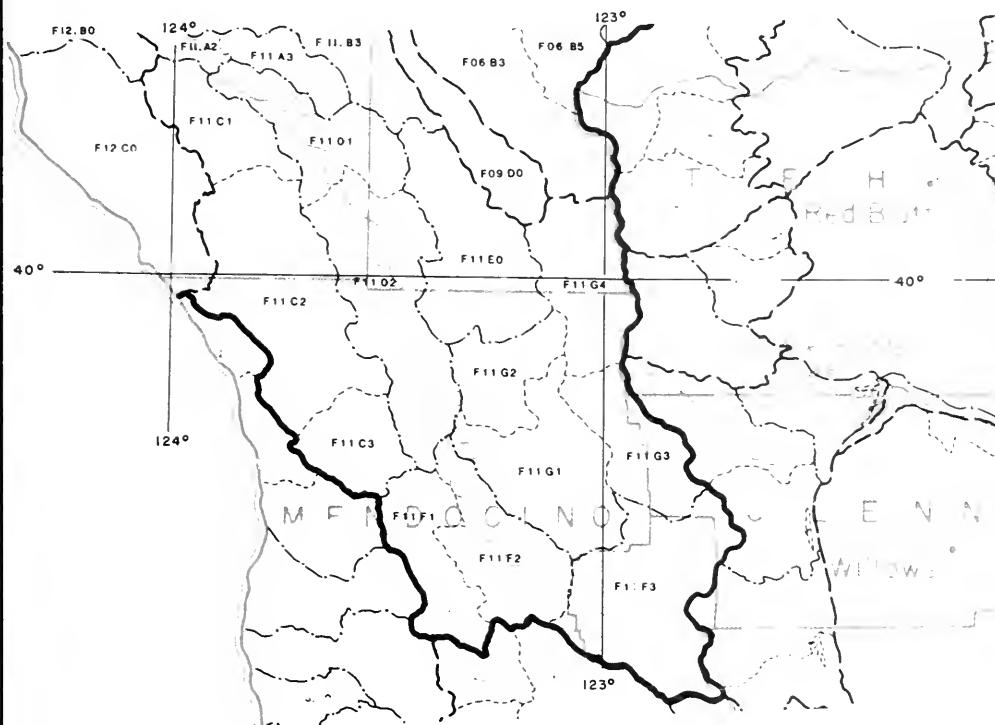
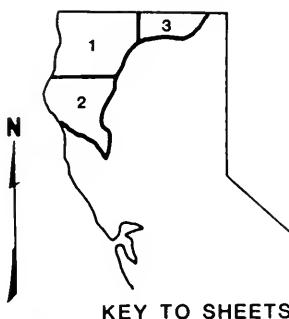


Figure 2 AREAL CODES AND BOUNDARIES



SCALE IN MILES

0	10	20	30	40
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LEGEND

— VOLUME I BOUNDARY

— - - - } BOUNDARIES OF SUBAREAS

KEY TO SHEETS

Figure 2 AREAL CODES AND BOUNDARIES

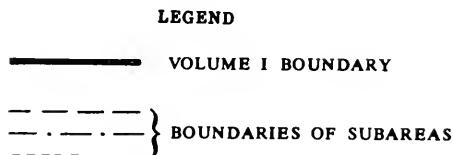
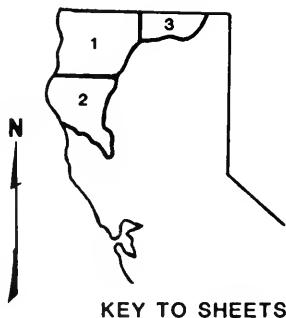
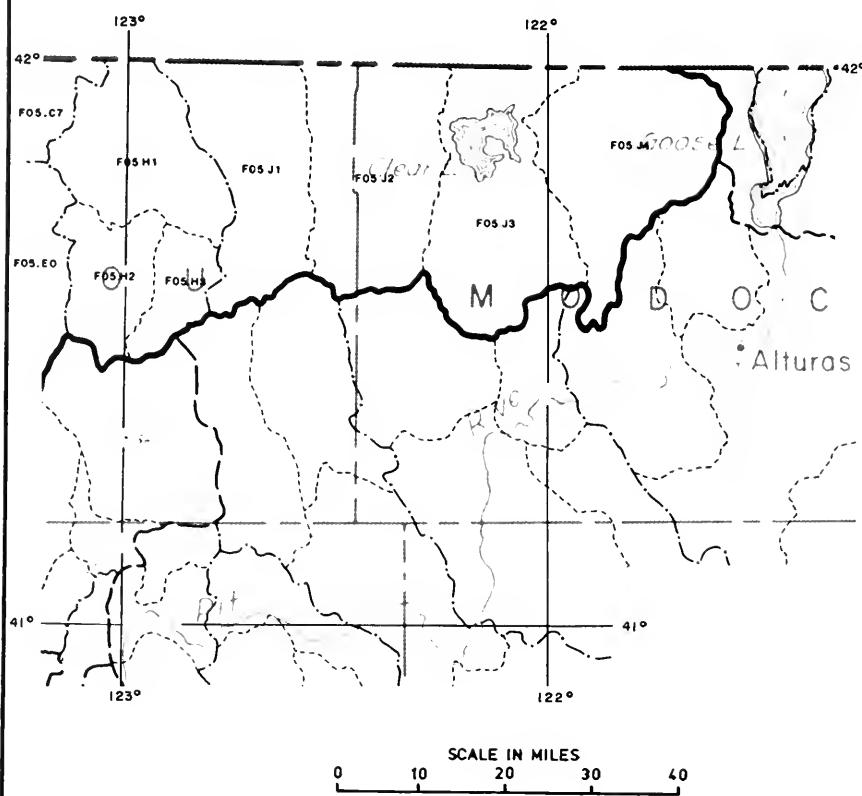


Figure 2 AREAL CODES AND BOUNDARIES

APPENDIX A

CLIMATOLOGICAL DATA

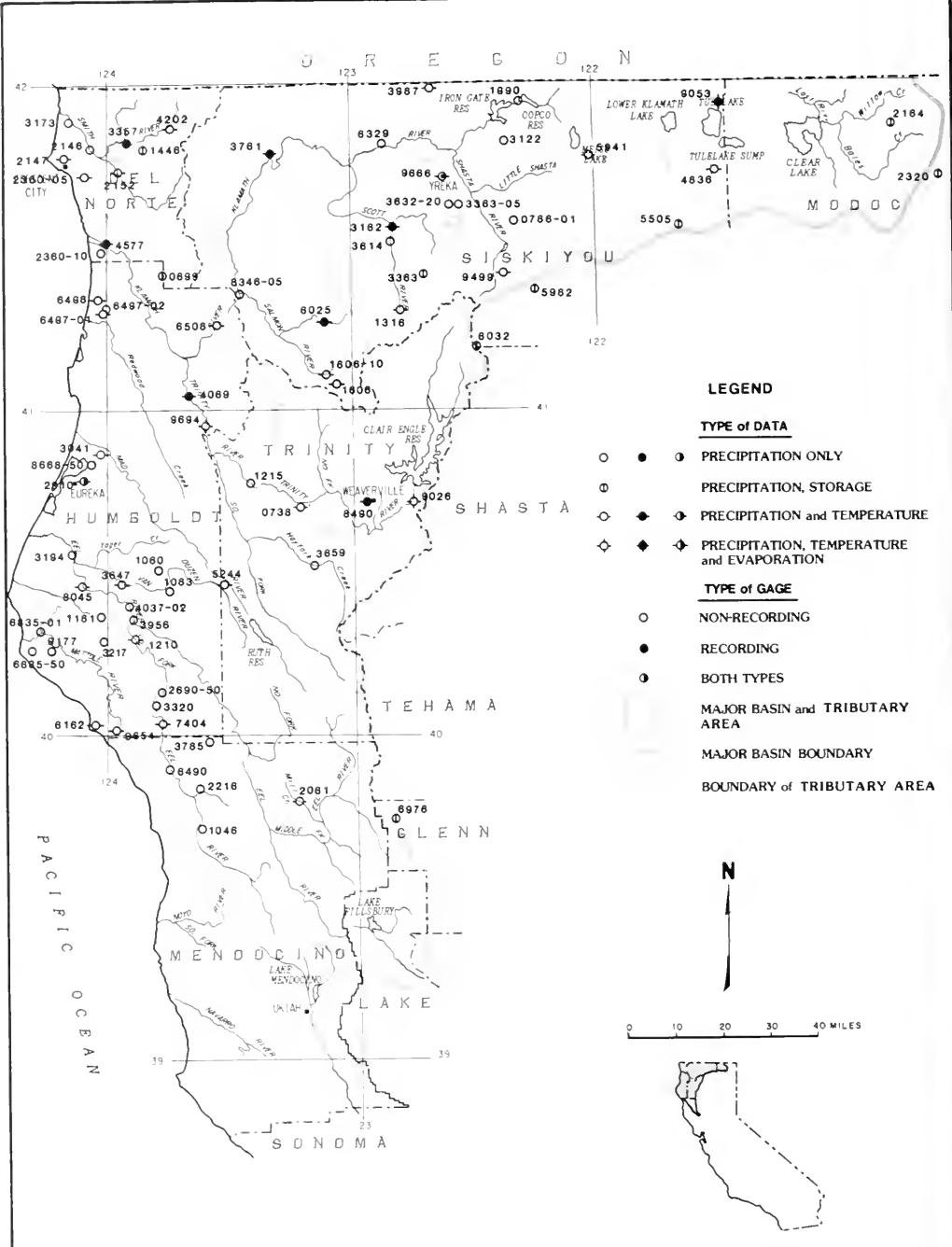


Figure 3 LOCATION OF PRECIPITATION STATIONS

APPENDIX A

CLIMATOLOGICAL DATA

Appendix A presents precipitation data for certain climate stations (Table A-1) and storage gages (Table A-2) in the North Coastal Area for the water year October 1, 1984 through September 30, 1985. The location of the stations is shown on the facing map.

The first three characters of the nine character station number indicate the major basin ("F" in this volume) and tributary area in which the station is located. The code numbers and names of the tributary areas for this volume are:

Code No.	Tributary	Code No.	Tributary
00	Smith River	40	Trinity River
10	Lost River-Butte Valley	50	Mad River
20	Shasta-Scott Valleys	60	Eel River
30	Klamath River	70	Mattole River

The fourth through the ninth characters denote the sequence of the stations under an alphanumeric system developed by the National Weather Service. (The fourth through seventh characters are the same as the four-digit station numbers used by the National Weather Service.) To simplify presentation the first three characters and the last two (if they are zero) are omitted from Figure 3.

Climatological stations are often named after the nearest post office and the distance and direction to the station. Distance is in miles, and the direction is represented in one of 16 compass points. For example, Bridgeville 4 NNW denotes a station located 4 miles north northwest of the post office at Bridgeville. When two observers (stations) are situated in the same general location, the town name is sometimes followed by the name of the observer. For example; Briceland-Wolf, where Briceland is the place name and Wolf is the observer. The responsibility for selecting the station name generally rests with the agency or individual who establishes the station.

The space for station names is restricted to a combination of 25 letters and/or numerals; therefore, some abbreviations are necessary. Common abbreviations are:

AP	-	Airport
FS	-	Fire Station
HMS	-	Highway Maintenance Station
LO	-	Lookout
PH	-	Power House
RS	-	Ranger Station
SP	-	State Park
STA	-	Station

The Department gives latitude and longitude to the nearest second when the value is known, but the National Weather Service lists stations by degree and minute only. A zero value or a blank space for "seconds" in the latitude and longitude columns means that these values have been obtained from the National Weather Service, and have not been verified in the field by the Department.

Elevations are given in feet from USGS mean sea level datum, and are usually obtained by interpolation between contours of USGS topographic maps.

Precipitation values are shown to the nearest hundredth of an inch (0.01"). (Where digital recording rain gages that only record to the nearest tenth of an inch are used, a zero is shown in the second decimal place.)

The following notations are used to qualify the values:

- No record or incomplete record
- B Record began
- E Estimated in some degree
- N Record ends
- .00T Trace, an amount too small to measure

TABLE A-1
MONTHLY PRECIPITATION
NORTH COASTAL AREA

EAL OE STATION NUMBER	LAT	LONG	ELEV	STATION NAME	TOTAL	PRECIPITATION IN INCHES											
						OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
6A3 F40073800	40 44	123 14	1,270	Big Bar Ranger Station	29.66	3.19	15.50	2.12	.53	3.26	3.27	.12	.47	.12	.06	.24	.78
5E0 F20073601	41 35	122 19	2,955	Big Springs 4 E	11.06	1.63	2.93	.18	.00	1.26	.10	.09	.76	.56	1.43	.82	1.39
1C3 F60104600	39 41	123 39	1,480	Branscomb 3 NW	63.18	7.58	27.25	4.98	1.38	9.57	9.53	.55	.86	.08	.00	.00	1.40
1B2 F60103000	40 31	123 49	2,050	Bridgewater 4 NNW	57.92	7.32	24.68	5.78	1.07	6.66	7.65	.85	1.29	1.01	.02	.36	1.23
1B3 F60108300	40 28	123 48	650	Bridgeville Fire Station	43.22	4.34	18.08	4.44	.87	4.63	7.49	.32	.73	.29	.00	.35	1.68
1C1 F60118100	40 21	124 06	410	Bull Creek	62.43	5.26	31.95	5.24	1.29	5.50	6.30	.95	2.90	.17	.00	.09	.37
1C1 F60121000	40 18	123 54	200	Burlington State Park	54.31	4.36	28.67	5.09	.88	4.52	8.20	.36	3.39	.27	.00	.52	1.05
6A3 F40121500	40 47	123 28	2,150	Burnt Ranch 1 S	—	—	—	—	—	4.62	4.03	.25	.75	.35	.10	.45	1.10
5D2 F20131601	41 24	122 50	—	Callahan	16.98	1.50	7.40	.42	.31	2.12	.99	.37	.70	.45	1.23	.08	1.41
5B8 F30160510	41 08	123 08	2,960	Cecilville 1 SE	—	—	—	—	—	—	—	—	—	—	—	.70	1.07
5B8 F30160600	41 06	123 03	2,980	Cecilville 5 SE	—	—	—	—	—	—	—	.54	1.03	.37	.39	—	—
5C7 F30190900	41 59	122 20	2,700	Copco Dam NO 1	20.13	2.45	6.22	2.00	.08	2.34	1.03	.30	1.47	.42	.97	.19	2.56
1C2 F60208100	39 47	123 15	1,385	Covelo	31.85	3.22	15.81	2.52	.44	3.43	4.02	.20	1.10	.00	.00	.20	1.00
3A1 F00217400	41 46	124 12	40	Crescent City 1 N	53.55	6.60	19.15	4.42	.52	6.49	7.31	1.09	1.58	4.62	.11	.05	1.61
3A1 F00214800	41 48	124 05	120	Crescent City 7 ENE	—	8.03	20.78	4.78	.78	8.11	9.46	1.50	2.35	4.58	.21	.07	—
5J0 F20215200	41 45	123 59	360	Crescent City 11 E	79.16	7.57	32.11	5.88	.84	9.99	12.52	1.64	2.42	3.81	.19	.05	2.11
1C2 F60221800	39 50	123 38	1,270	Cummings	57.75	6.38	25.72	5.00	1.18	7.79	7.90	.52	.78	.29	.00	.05	2.14
3E0 F30236305	41 41	124 06	720	Del Norte Coast Redwood SP	78.08	9.08	25.12	6.71	1.07	10.62	11.63	2.04	2.83	5.94	.21	.32	2.51
8B0 F30236010	41 30	123 03	880	Del Norte Ecology Center	68.65	9.21	23.99	5.65	.62	7.67	9.55	1.44	3.48	4.22	.48	.31	2.03
1C2 F60265050	40 08	123 49	460	Del River Conservation Camp	52.10	3.86	28.09	4.81	.71	4.29	7.71	.24	.66	.17	.00	.20	1.33
000 F60291000	40 48	124 10	43	Eureka WSO City	36.33	3.67	15.15	4.27	.66	3.69	4.68	.45	1.14	.89	.15	.52	1.05
19A0 F60314100	40 56	124 01	285	Fieldbrook 4 D Ranch	31.87	9.65	23.25	11.20	.07	10.10	12.75	2.30	2.50	5.85	.85	.30	3.05
5C5 F30312000	41 48	122 22	2,960	Foothill School	18.03	1.65	5.61	1.23	.25	1.62	.77	.10	1.21	.22	1.49	1.41	2.47
2C0 F40313000	40 73	123 20	2,340	Forest Glen	—	3.15	24.73	3.32	1.03	4.90	4.66	.38	.33	.04	—	—	
3A1 F00317300	41 52	124 09	46	Fort Dick	62.63	8.08	22.52	5.11	.71	7.30	8.25	1.45	1.98	4.62	.41	.21	1.99
5F5 F20318200	41 36	122 51	3,720	Fort Jones Ranger Station	20.58	1.91	9.56	.72	.17	2.40	1.89	.11	.75	.33	1.18	.39	1.17
1A1 F60319400	40 36	124 09	60	Fortuna Fire Station	40.68	4.42	18.06	4.46	.73	4.19	5.67	.32	.94	.54	.05	.27	1.03
1C1 F60321700	40 18	124 03	2,500	Fox Camp	54.37	6.31	32.39	5.93	1.33	5.87	8.70	.65	.50	.77	.02	.06	1.24
5C2 F00335700	41 52	123 58	384	Gagaquet Ranger Station	77.26	8.75	31.38	5.45	1.00	8.88	11.61	1.37	3.07	3.52	.26	.03	1.94
5F2 F20361400	41 33	122 54	2,818	Greenway	—	—	—	—	.04	1.82	1.45	.00	2.40	.09	.35	.00	.70
5E0 F20363200	41 35	122 33	2,720	Grenada 5 SSW	13.50	1.36	4.22	.54	.33	1.45	.31	.06	.91	.82	1.00	.06	2.44
1B3 F60364700	40 29	123 47	500	Grizzly Creek Redwood SP	49.05	4.29	21.70	5.20	.95	4.15	9.30	.52	.89	.51	.00	.25	1.29
3B0 F30376100	41 48	123 23	1,090	Happy Camp Ranger Station	45.26	4.37	24.05	2.11	.56	6.17	5.19	.36	.86	.98	.00	.01	.60
1D2 F60373500	39 59	123 36	1,910	Harris 7 SSE	58.48	3.93	25.56	5.54	1.10	5.70	8.29	2.04	.48	2.29	.01	.20	3.38
5B5 F40385900	40 33	123 10	2,340	Hayfork Ranger Station	—	2.40	15.23	2.08	.54	2.22	3.62	.10	—	.11	.18	1.15	1.88
5J0 F30397900	42 00	122 38	2,900	Hills	—	1.45	7.12	1.19	.65	4.11	8.64	.33	.55	.27	.00	.29	1.04
1C2 F60403700	40 25	123 57	150	Holmes	46.43	3.40	23.10	4.00	.65	4.11	8.64	.33	—	—	—	—	—
1C2 F60407410	40 15	123 07	339	Honeydew Store	—	2.26	31.51	2.52	.13	—	—	—	—	—	—	—	—
3B0 F30471600	41 48	123 23	1,090	Happy Camp Ranger Station	45.26	4.37	24.05	2.11	.56	6.17	5.19	.36	.86	.98	.00	.01	.60
1D2 F60373500	39 59	123 36	1,910	Harris 7 SSE	58.48	3.93	25.56	5.54	1.10	5.70	8.29	2.04	.48	2.29	.01	.20	3.38
5B5 F40385900	40 33	123 10	2,340	Hayfork Ranger Station	—	2.40	15.23	2.08	.54	2.22	3.62	.10	—	.11	.18	1.15	1.88
5J0 F30497700	41 31	122 04	25	Klamath	69.06	9.01	24.58	5.87	.87	4.95	10.37	.90	2.14	3.51	.30	.34	1.62
5J2 F40483800	41 43	121 30	4,770	Lava Beds National Monument	11.03	1.46	2.22	.82	.07	1.08	1.59	.02	.49	.36	.83	.21	1.38
3C0 F40482000	40 27	123 32	2,775	Mad River Ranger Station	47.19	5.01	24.29	2.74	.99	5.74	5.53	.46	.31	.13	.03	.42	1.57
1C0 F80552450	—	—	32,51	Mendocino Headlands SP	53.51	5.26	12.32	2.98	1.25	2.85	5.71	.25	.31	.08	.18	.05	1.27
5H1 F10594100	41 47	122 00	4,250	Mount Hebron Ranger Station	10.44	1.51	2.88	.66	.01	.65	.51	.14	.38	.15	.74	.05	2.76
3C0 F30632900	41 50	123 51	1,963	Oak Knoll Ranger Station #2	21.46	2.33	10.41	1.26	.10	2.61	2.55	.18	.57	.39	.14	.15	.77
1T0 F50649701	41 19	122 02	50	Orick 3 NNE	56.57	6.89	21.69	5.90	.30	6.44	7.28	.10	1.66	2.65	.07	.37	1.31
1T0 F50649702	41 19	122 02	75	Orick Arcata Redwood	53.89	6.67	21.28	5.69	.87	5.33	7.17	.10	1.76	2.57	.07	.33	.77
1T0 F50649800	41 22	124 01	161	Orick Prairie Creek SP	57.91	7.20	20.95	5.65	1.04	7.87	8.16	1.20	1.57	2.43	.17	.34	1.33
0542 F30650800	41 18	123 32	403	Orleans	48.65	6.06	21.30	5.53	.89	5.94	6.48	.18	.92	1.56	.25	.28	1.36
1C0 F70663500	40 19	124 16	175	Petrolia	48.27	3.94	23.05	5.51	1.15	4.26	7.11	.31	.85	1.02	.02	.04	1.01
1C0 F70663500	40 15	124 15	1,560	Petrolia 5 SSE	77.33	7.48	36.62	6.21	2.03	8.87	10.45	.92	1.62	1.85	.00	.00	1.28
07C0 F50734200	40 54	123 49	850	Redwood Creek Oxane	41.90	3.70	16.50	4.30	.80	3.20	3.00	.80	1.40	1.00	.10	.30	.18
1C2 F60704000	40 02	123 47	500	Richardson Grove State Park	59.22	5.31	29.58	4.54	.82	6.81	8.09	.80	.77	.50	.00	.28	1.72
0583 F30802500	41 18	123 08	2,169	Sawyers Bar Ranger Station	—	4.93	15.67	1.91	.39	4.79	3.36	.46	.59	.66	.24	—	1.12
11A2 F60804500	40 29	124 06	139	Scotia	38.63	3.22	18.70	3.44	.55	3.61	6.18	.46	.65	.41	.04	.24	1.13
12C0 F70816200	40 02	124 04	55	Shelter Cove Aviation	43.95	7.75	13.49	4.64	4.69	9.28	9.24	.41	1.75	1.04	.15	.04	3.04
05C1 F30834605	41 23	123 29	727	Somesbar Ukonom RS	48.82	6.64	19.12	3.36	.58	7.94	5.85	.42	.74	1.74	.17	.78	1.48
11C2 F60849000	39 52	123 43	350	Standish Hickey State Park	54.02	4.44	22.66	4.39	1.08	8.62	8.76	.28	.95	.77	.00	.03	2.64
1000 F60866850	40 52	124 04	70	Sunny Brae	42.86	4.63	16.51	5.39	.78	4.75	5.25	.64	1.41	1.25	.05	.63	1.57
06C1 F40092600	40 43	122 48	1,860	Trinity River Hatchery	—	3.15	13.33	2.02	.49	2.62	2.56	.23	.54	.38	.21	—	1.00
05J2 F10905300	41 58	121 28	4,035	Tulalikse	10.27	1.90	2.53	.94	.24	.57	.57	.47	.47	.33	.34	.18	1.73
12C0 F70917700	40 15	124 11	255	Upper Mattole	—	5.20	32.81	5.51	1.31	5.98	8.37	.30	.72	.82	.00	—	—
06C2 F40949000	40 44	122 56	2,050	Wheaville Ranger Station	32.54	3.39	16.89	2.36	.56	2.92	3.58	.23	.19	.49	.19	.42	1.32
05E0 F20949000	41 26	123 23	3,593	Wheat FD	17.55	.85	9.42	.53	.07	.91	.95	.35	.62	.35	1.60	.09	1.81
13A2 F400952600	39 38	123 02	50	Westport	40.78	5.05	17.40	3.49	1.44	4.63	6.67	.31	.53	.02	.00	.07	1.13
13A2 F60958500	39 39	123 45	80	Westport 2 NE	44.65	5.39	18.70	3.87	1.46	5.68	6.87	.38	.70	.02	.03	.00	1.55
12C0 F70954300	40 01	123 56	1,050	Whitethorn	67.18	9.24	27.73	5.96	1.06	9.49	10.70	.58	.62	.40	.04	.05	1.54
11F1 F60968400	39 25	123 21	1,350	Willits 1 NE	38.13	4.73	17.22	1.63	1.29</td								

TABLE A-2
STORAGE GAGE PRECIPITATION DATA

Storage gages are used to record seasonal precipitation in remote regions. They are read annually and are located on tanks which store an entire year's precipitation. Although logistics preclude conducting the measurement exactly at the end of the water year, the gages reasonably depict the total precipitation for the water year since precipitation during the summer months is negligible. In preparation for a new water year, the tanks are emptied, cleaned, and supplied with antifreeze and oil to prevent freezing and loss due to evaporation. Table A-2 lists the values from the storage gages.

The counties in which storage gages are located are identified with the codes listed below:

County	Code
Del Norte	DNT
Glenn	GLE
Modoc	MOD
Siskiyou	SIS
Trinity	TRI

TABLE A-2
STORAGE GAGE PRECIPITATION DATA
NORTH COASTAL AREA

Volume I Station Name	Station Number	Areal Code	County	Lat.	Long.	Elev.	Measurement Period	Precipitation (inches)
North Coastal Hydrologic Basin								
Smith River Camp Six L.O.	F00 144600	F03B0	DNT	41-49-48	123-52-24	3700	10/29/84 to 10/28/85	96.16
Lost River - Butte Valley Crowder Flat	F10 218400	F05F4	MOD	41-53-00	120-44-00	5175	07/26/84 to 06/20/85	15.75
Long Bell Station	F10 508100	A2303	MOD	41-28-00	121-25-00	4375	07/17/84 to 06/25/85	18.65
Medicine Lake	F10 550500	A23C3	SIS	41-35-00	121-37-00	5660	07/17/84 to 06/25/85	32.90
Shasta - Scott Valleys Gazelle Mtn. L.O.	F20 336300	F05D2	SIS	41-24-30	122-40-30	5200	07/16/84 to 06/24/85	14.00
Klamath River Blue Creek Mtn. L.O.	F30 089900	F03C0	DNT	41-23-42	123-45-54	4870	11/16/84 to 10/08/85	71.05
Trinity River Humbo Basin	F40 603200	F06D0	TRI	41-12-00	122-32-00	5700	07/18/84 to 06/26/85	41.80
Eel River Plaskett	F60 697600	F11G3	GLE	39-44-12	122-51-24	6580	07/10/84 to 06/13/85	58.28



APPENDIX B

SURFACE WATER MEASUREMENT

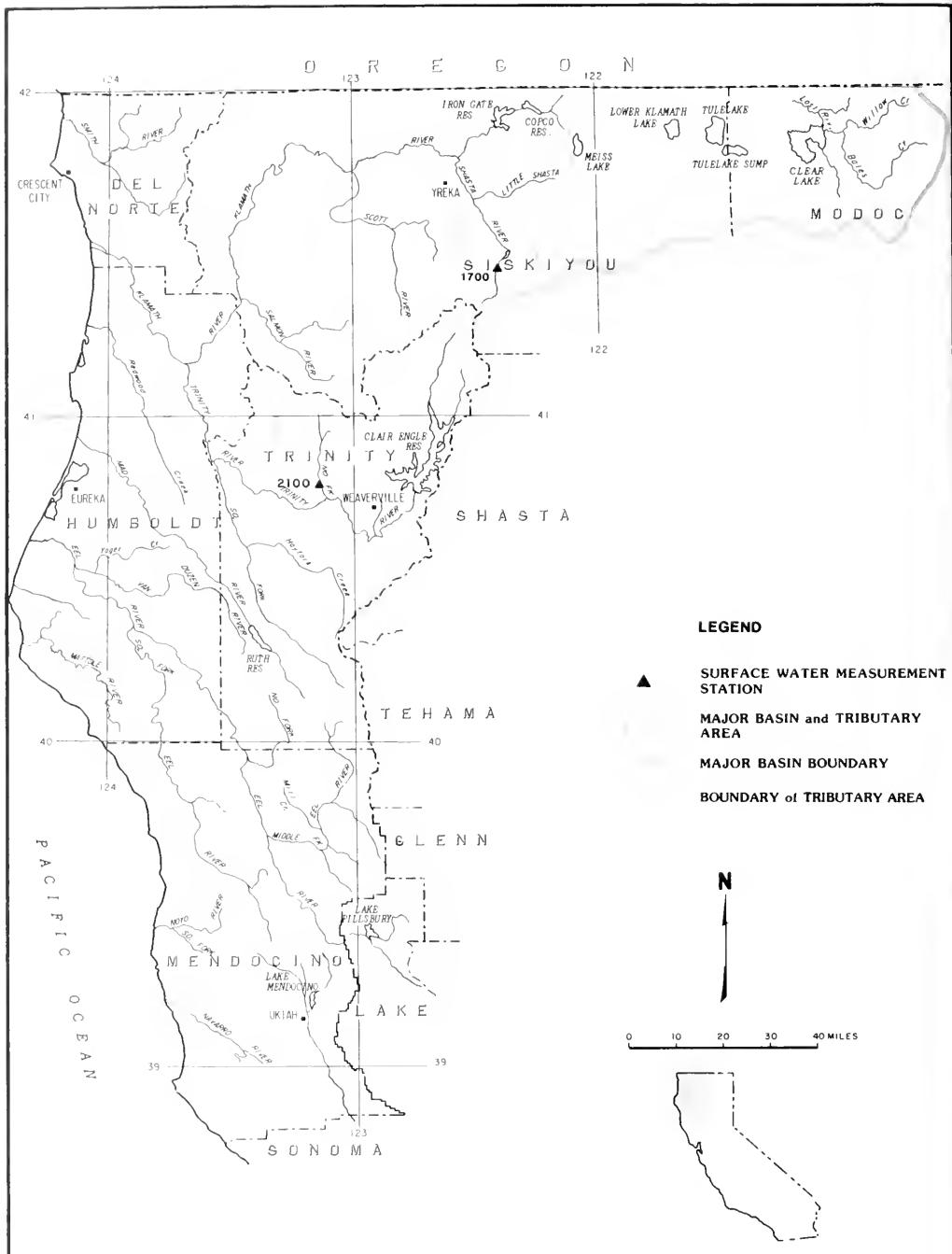


Figure 4 LOCATION OF SURFACE WATER MEASUREMENT STATIONS

APPENDIX B

SURFACE WATER MEASUREMENT

Appendix B presents stream flow measurement data in the North Coastal Area for the water year October 1, 1984 to September 30, 1985. The locations of the stations are shown on the facing map.

The first two characters of the station number indicate the major basin ("F" in this volume) and tributary area in which the station is located. The code numbers and names of the tributary areas for this volume are:

Code No.	Tributary	Code No.	Tributary
0	Smith River	4	Trinity River
1	Lost River-Butte Valley	5	Mad River
2	Shasta-Scott Valleys	6	Eel River
3	Klamath River	7	Mattole River

Surface water stations are named after the stream and a nearby landmark or post office. An example is the station "Trinity River, North Fork, near Helena."

The tables give the daily mean flow at designated stations. In addition, the maximum and minimum discharge and gage height for the water year and the maximum discharge and gage height of record is summarized. The datum and other pertinent data concerning each station are also shown.

The discharge estimated for periods of no record are shown with the letter "E." Also qualified by the letter "E" are discharges obtained from extended ratings which exceed 140 percent of the highest measured flow-rate on which the rating curve was based.

The discharge figures have been rounded as follows:

Daily flows - second-feet

0.0	-	9.9	nearest Tenth
10	-	999	nearest Unit
1,000	-	9,999	nearest Ten
10,000	-	99,999	nearest Hundred
100,000	-	999,999	nearest Thousand

Monthly means - second-feet

0.0	-	99.9	nearest Tenth
100	-	9,999	nearest Unit
10,000	-	99,999	nearest Ten
100,000	-	999,999	nearest Hundred

Monthly and yearly totals - acre-feet

0.0	-	9,999	nearest Unit
10,000	-	99,999	nearest Ten
100,000	-	999,999	nearest Hundred
1,000,000	-	9,999,999	nearest Thousand

TABLE B
DAILY MEAN DISCHARGE
IN CUBIC FEET PER SECOND

STATION NUMBER: F21700 SHASTA RIVER NEAR EDGEWOOD														
LOCATION: LAT 41-28-21, LONG 122-26-21, T42N, R05W, SEC. 20M, MD B4M SISKIYOU COUNTY														
DRAINAGE AREA: Not Available														
HYDROLOGIC AREA: F-05.E0														
WATER DAY	YEAR	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	DAY
1	1984	23	27	114	56	51	65	54	56	42	11	24	10	1
2	1984	20	160	104	54	53	66	59	63	59	12	16	18	2
3	1984	19	124	108	56	53	61	59	66	41	10	14	19	3
4	1984	21	69	101	56	49	63	68	54	35	9.7	13	17	4
5	1984	19	55	96	56	50	57	78*	47	33	9.6	13	16	5
6	1985	19	66	88	56	51	54	122	43	32	10	13	16	6
7	1985	19	59	82	64	55	55	160	51*	33	10	12	19	7
8	1985	19	57	79	61	79	44	162	46	37	9.9	10	29	8
9	1985	21	52	95	61	60	41	154	38	36	10	11	37	9
10	1985	23	153	122	57	55	40	151	35	34	9.8	10	28	10
11	1985	29	274	127	54	57	42	138	34	30	10	11	25	11
12	1985	26	615E	109	53	72	41	118	29	26	9.6	11	24	12
13	1985	25	491	99	53	71	39*	117	25	24	9.0	10	23	13
14	1985	24	201	89	53*	68	37	142	24	23	8.9	10	24	14
15	1985	24	145	92	53	69	37	170	23	22	9.7	10	24	15
16	1985	25	128	89	53	69*	38	163	24	20	11	9.9	25	16
17	1985	28	113	81	53	67	40	143	26	19	11	9.1	24	17
18	1985	28	128	79*	55	65	42	121	26	18*	9.6	9.4	23	18
19	1985	31	99*	69	57	64	42	107	26	15	8.4	13	22	19
20	1985	32	129	68	57	63	42	92	27	14	7.8	14	22	20
21	1985	30	122	71	56	61	43	73	28	13	8.5	13	22	21
22	1985	28	97	68	55	62	40	63	29	13	9.7	11	21	22
23	1985	27	91	64	55	64	39	56	34	14	9.4	9.8	19	23
24	1985	27	125	62	54	65	46	49	37	14	9.5*	9.0	19	24
25	1985	27*	98	63	54	68	45	44	43	13	9.2	8.3	19	25
26	1985	27	83	63	54	67	42	39	44	13	8.9	7.8	19	26
27	1985	27	93	63	52	65	47	38	41	12	8.4	7.4	19	27
28	1985	28	168	61	56	64	50	41	43	11	8.1	7.1	18	28
29	1985	33	140	59	54	51	43	51	10	10	7.0	7.2	19	29
30	1985	30	122	59	52	53	48	38	10	8.1	7.9	19	30	
31	1985	28	59	51			54	38		26	9.0		31	
MONTHLY														
MEAN	25.4	143	83.3	55.2	62.0	47.0	95.7	38.4	23.9	10.0	11.0	21.3		
MAX	33	615E	127	64	79	66	170	66	59	26	24	37		
MIN	19	27	59	51	49	37	38	23	10	7.0	7.1	10		
ACFT	1561	8497	5123	3394	3445	2888	5697	2358	1420	614	676	1267		
MEAN FLOW	INSTANTANEOUS MAXIMUM FLOW, 1984-5					INSTANTANEOUS MINIMUM FLOW, 1984-5					TOTAL ACRE FEET			
51.0	DATE November 12	TIME 0015	FLOW 617E	CFH 3.22	G.H. 3.22	DATE July 29	TIME 1715	FLOW 6.4	G.H. 0.96		36940			

REMARKS:

Station located 200 feet downstream from Edgewood Road Bridge on left bank.

Flows affected by upstream diversions.

Station moved 700 feet upstream to present location on October 1, 1979.

Period of record for discharge is from March 1961 to October 1967 and from October 1978 to date.
Period of record for gage height is the same as for discharge.

The datum for this station from 1979 to present is 0.0, local.

FOR PERIOD OF RECORD BEGINNING 1961:

	FLOW	GAGE	
	CFS	HEIGHT	DATE
INSTANTANEOUS MAXIMUM	3320	6.65	January 26, 1983
AVERAGE/YEAR	Not Available		1830

E = Estimated. NR = No record. * = Discharge measurement or observation of no flow.

TABLE B (CONTINUED)
DAILY MEAN DISCHARGE
IN CUBIC FEET PER SECOND

STATION NUMBER: F42100 NORTH FORK TRINITY RIVER AT HELENA												HYDROLOGIC AREA: F-06.A5	
LOCATION: LAT 40-46-55, LONG 123-07-38, T34N, R11W, SEC. 20M, MD B&M TRINITY COUNTY												DRAINAGE AREA: 151.0 SQ MILES	
WATER DAY	YEAR	OCT	NOV	1984	through	SEPTEMBER	1985						
		OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	90	852	218	203	405	812	519	187	83	45	27	1
2	32	1020	745	212	196	381	1170	525	193	81	43	28	2
3	30	734	676	210*	186	350	1300	474	175	81	38	28	3
4	29	357	614	210	177	336	1250	382	201	80	35	26	4
5	30	242	565	215	170	315	1240	351	222	79	33	26	5
6	30	355	555	227	165	300	1320	351	392	77	32	26	6
7	30	378	541	255	192	288	1280	324	401	74	31	27	7
8	30	400	534	261	232	265	1160	308	335	72	31	37	8
9	34	405	519	273	228	254	1090	289	276	68	32	39	9
10	42	996	665	263	230	254	1060	270	252	65	32	46	10
11	119	2530	811	253	227	252	939	251	245	61	30	44	11
12	98	4540	737	245	495	257	812	239	275	59	29	40	12
13	217	2750	645	238	605	254	843	255	279	57	29	38	13
14	106	1640	570	231	578	255	949	288*	245	56	28	48	14
15	76	1080	532	228	607	261	968	269	243	54	28	46	15
16	76	800	469	249	680	275	802	295	225	53	27	39	16
17	72*	684	430	330	650	285	666	316	239	52	26	35	17
18	67	796	403	396	574	284	578	326	253	50	32	34	18
19	93	735	365	392	522*	295	507	338	242	47	37	32	19
20	136	705	343	385	481	307	450	328	226	45	34	29	20
21	102	648	321	374	445	302	418	316	195	45	32	28	21
22	87	567	300	354	459	282*	387	336	161	49*	30	27	22
23	83	550	289	333	506	270	370	390	152	47	28	26	23
24	82	805	279	312	518	325	356	394	133	43	27	26	24
25	77	722	273	290	505	281	334	379	113	40	26	28	25
26	104	610	270	272	472	289	321	383	100	39	28	28	26
27	98	679	259	255	432	290	360	311	96	40	28	27	27
28	110	1240	248	246	405	273	397	287	94	45	28	27	28
29	180	1070*	235	230	265	412	246	92	42	27	27	29	
30	132	874	232	220	322	449	213	88	41	27	27	30	
31	105		225	210		505		193		41	26		31
MONTHLY													
MEAN	81.9	967	468	271	398	299	767	327	211	57.0	30.9	32.2	
MAX	217	4540	852	396	680	505	1320	525	401	83	45	48	
MIN	29	90	225	210	165	252	321	193	88	39	26	26	
ACFT	5036	57520	28760	16640	22100	18400	45620	20120	12560	3503	1902	1916	
MEAN	INSTANTANEOUS MAXIMUM FLOW, 1984-5				INSTANTANEOUS MINIMUM FLOW, 1984-5				TOTAL ACRE FEET				
FLOW	DATE	TIME	FLOW	G.H.	DATE	TIME	FLOW	G.H.	DATE	TIME			
323	November 12	0645	5470	14.30	September 6	2215	24	5.01					234077

REMARKS:

Station located 1.0 miles above mouth, 0.6 miles north of Helena.

Stage-discharge relationship affected by ice at times.

Period of record for discharge is from September 1957 to Date. Period of record for gage height is the same as discharge.

The datum for this station from 1957 to present is 0.0, local.

FOR PERIOD OF RECORD BEGINNING	1957:	FLOW	GAGE				
		CFS	HEIGHT	DATE	TIME		
INSTANTANEOUS MAXIMUM		35800	27.93	December 22, 1964	Not Available		
AVERAGE/YEAR							
		Not Available					

E = Estimated. NR = No record. * = Discharge measurement or observation of no flow.



APPENDIX C

SURFACE WATER QUALITY

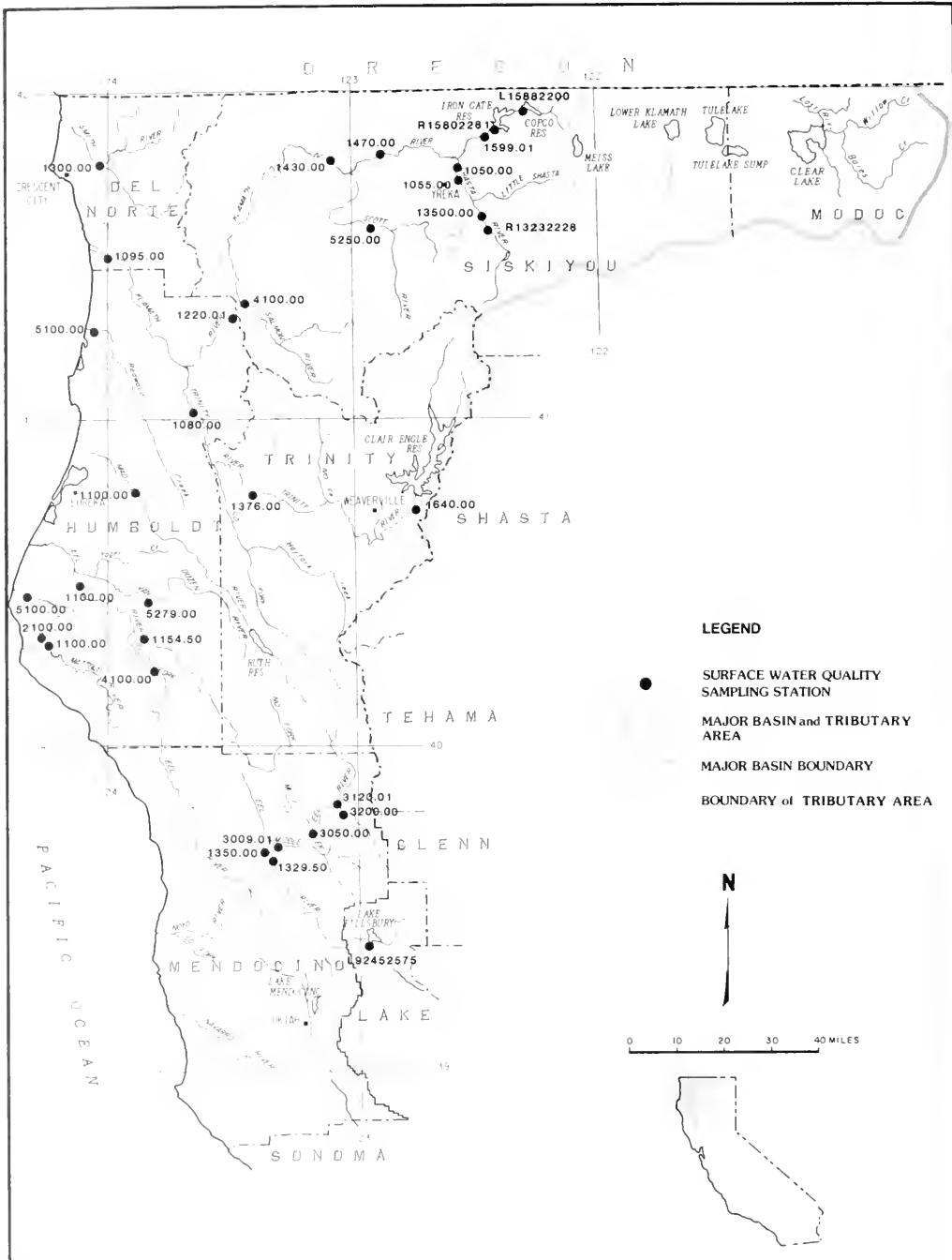


Figure 5 LOCATION OF SURFACE WATER QUALITY STATIONS

APPENDIX C SURFACE WATER QUALITY

Appendix C lists surface water quality data for the North Coastal Area measured from October 1, 1984 to September 30, 1985. The data are presented in categories, as follows:

Table	Title
C-1	Mineral Analyses of Surface Water
C-2	Minor Element Analyses of Surface Water
C-3	Miscellaneous Analyses of Surface Water
C-4	Nutrient Analyses of Surface Water

The locations of the stations are shown on the facing page.

The first two characters of the station number indicate the major basin ("F" in this volume) and tributary area in which the station is located. The code numbers and names of the tributary areas for this volume are:

Code No.	Tributary	Code No.	Tributary
0	Smith River	4	Trinity River
1	Lost River-Butte Valley	5	Mad River
2	Shasta-Scott Valleys	6	Eel River
3	Klamath River	7	Mattole River

As with surface water measurement stations, surface water sampling stations are named after the stream and a nearby landmark or post office. An example of this is the station "Eel River, South Fork, near Miranda." If a sampling station is situated at the site of a surface water measurement station, each uses the same name.

Surface water quality stations are listed in the tables by ascending station number. The station number is found to the left, and the areal code to the right of the station name. The areal code is described on page 2.

To facilitate use of the surface water quality tables, a sampling station index is provided on page 25. This index lists the stations in the tables and gives location data for each. Also, the number of pages referenced indicates the extent of analysis for each station.

In order to increase the amount of information presented in the water quality tables, multiple headings are used at the top of the column, and data tabulated respectively. For example, the first column of Table C-1 shows the date of sampling printed above the time of sampling so the data are tabulated in that order. If a part of the values for a multiple heading column are obtained, they will appear in the column with respect to the heading positions. If dashes (or no data) appear in a column, it means no data was obtained.

At the time of field sampling, dissolved oxygen, pH, temperature, specific conductance and gage height are determined.

Abbreviations and codes used in each table are explained at the beginning of each table.



SAMPLING STATION INDEX
North Coastal Area

Station	Station Number	Location*	Areal Code	Beginning of Record	Analyses on Page
BBY C NR SOMESBAR	F3 2264.00	14N/06E-22 H	F05C1	APR. 1984	43
BAIR A CAPE TOWN	F7 5100.00	01N/03W-13 H	F12B0	MAY 1964	53, 59, 63
BAK BUTTE R NR COVELO	F6 3200.00	23N/11W-28 M	F11G1	NOV. 1964	53, 59, 63
BAI ENGLE LK NR FAIRVIEW BOAT RAMP	F4 L 049.0 245.9	34N/08W-10 M	F06D0	JULY 1976	49, 63
BAE C NR HAPPY CAMP	F3 2315.00	15N/07E-07 H	F05C1	DEC. 1971	44, 45, 59, 62
BAIIC NR SOMESBAR	F3 2325.00	14N/06E-14 H	F05C1	DEC. 1971	45
BAI LK NR COPCO	F3 L 158.8 220.0	48N/04W-29 M	F05C7	JULY 1973	29, 61
BAIIN C NR SOMESBAR	F3 2260.00	14N/06E-28 H	F05C1	NOV. 1971	42, 43, 59, 62
BAIELL RES NR DAM	F2 R 132.3 222.6	43N/05W-25 H	F05E0	JUNE 1973	27, 61
BAI A SCOTIA	F6 1100.00	01N/01E-05 H	F11A2	APR. 1951	51
BAI A SOUTH FORK	F6 1154.50	01S/02E-26 H	F11C1	APR. 1951	51
BAI AB OUTLET C NR DOS RIOS	F6 1329.50	21N/13W-31 M	F11F2	APR. 1958	51, 52
BAI MF A DOS RIOS	F6 3009.01	21N/13W-06 M	F11D2	APR. 1958	52, 59, 63
BAI MF AB BLACK BUTTE R	F6 3120.01	23N/11W-28 M	F11G1	FEB. 1965	52, 59
BAI SF NR MIRANDA	F6 4100.00	03S/04E-30 H	F11C2	APR. 1951	53, 63
BAIKA MO A HAPPY CAMP	F3 4199.00	17N/07E-15 H	F05C1	AUG. 1984	49, 63
BAIT C NR SOMESBAR	F3 2265.00	14N/06E-22 H	F05C1	DEC. 1971	43
BAITFF C NR SEIAD VALLEY	F3 1425.00	46N/12W-05 M	F05C2	APR. 1984	38
BAITR C NR SEIAD VALLEY	F3 4245.00	46N/12W-14 M	F05C3	SEPT. 1971	49
BAIDENDENCE C NR CLEAR CREEK	F3 4180.00	15N/07E-30 H	F05C1	APR. 1984	49
BAIDN C AT MOUTH	F3 2329.00	16N/07E-11 H	F05C2	AUG. 1954	46, 47, 55, 59, 62
BAIDN C A SF INDIAN C BR	F3 2305.00	17N/07E-08 H	F05C2	APR. 1984	44
BAIDN C BL MILLPOND	F3 2303.00	17N/07E-22 H	F05C2	AUG. 1954	44
BAIDN C EF A MO	F3 2304.00	17N/07E-09 H	F05C2	APR. 1984	44
BAIDN C NR HAPPY CAMP	F3 2299.00	17N/07E-26 H	F05C2	SEPT. 1958	44
BAIDN C SF A BAR	F3 2306.00	17N/07E-07 H	F05C2	APR. 1984	44
BAIATE RES NR HORNBROOK	F3 R 156.0 226.1	47N/05W-09 M	F05C6	JUNE 1963	29, 61
BAIG C NR SOMESBAR	F3 4155.00	12N/06E-04 H	F05C1	NOV. 1971	48
BAITH R A Klamath GLEN	F3 1095.00	13N/02E-13 H	F05A1	JULY 1951	29, 61
BAITH R A ORLEANS	F3 1220.01	11N/06E-31 H	F05A2	JAN. 1964	29, 30, 55, 57, 61
BAITH R A R COLLIER REST STOP	F3 1585.00	46N/06W-08 M	F05C5	SEPT. 1973	42
BAITH R A SARAH TOTTEN CAMPGROUND	F3 1460.00	46N/10W-31 M	F05C3	APR. 1984	40, 41, 55, 59, 62
BAITH R AB DILLON C	F3 1330.00	14N/06E-28 H	F05C1	NOV. 1971	33, 34, 57, 62
BAITH R AB HAMBURG RES SITE	F3 1470.00	46N/10W-14 M	F05C3	DEC. 1958	41
BAITH R AB HAPPY CAMP	F3 1395.00	16N/07E-01 H	F05C2	APR. 1984	37, 38, 57, 62
BAITH R AB INDEPENDENCE CREEK	F3 1333.00	15N/07E-30 H	F05C1	MAY 1984	34, 35, 57, 62
BAITH R AB OAK FLAT CREEK	F3 1336.00	15N/07E-05 H	F05C1	APR. 1984	35, 36, 37, 55, 57, 62
BAITH R AB SALMON RIVER	F3 1302.00	11N/06E-04 H	F05A2	OCT. 1956	30, 31, 57, 62
BAITH R AB TI CREEK	F3 1327.00	14N/06E-09 H	F05C1	APR. 1984	32, 33, 55, 57, 62
BAITH R BELOW SHASTA R	F3 1575.00	46N/07W-13 M	F05C4	SEPT. 1971	42
BAITH R BL IRON GT DM	F3 1599.01	47N/07W-20 M	F05C6	DEC. 1961	42, 59, 62
BAITH R NR SEIAD VLY	F3 1430.00	46N/12W-03 M	F05C2	DEC. 1958	38, 39, 40, 55, 57, 62
BAITL E GRIDER C A HAPPY CAMP	F3 2328.00	16N/07E-15 H	F05C2	AUG. 1984	45
BAITL NR ARCATA	F5 1100.00	06N/01E-15 H	F09A0	NOV. 1958	50, 51
BAITOLE R NF A PETROLIA	F7 2100.00	02S/02W-04 H	F12C0	OCT. 1977	53
BAITOLE R NR PETROLIA	F7 1100.00	02S/02W-11 H	F12C0	JAN. 1959	53, 59, 63
BAIKL C NR COVELO	F6 3050.00	22N/12W-22 M	F11G1	MAR. 1953	52, 63
BAIKL C AT MOUTH	F3 4253.00	46N/11W-22 M	F05C3	JUNE 1972	49
BAIKL FLAT C NR HAPPY CAMP	F3 2317.00	15N/07E-05 H	F05C1	APR. 1984	45
BAIKL FLAT C NR LONGVALE	F6 1350.00	20N/14W-01 H	F11F2	MAY 1958	52
BAIKL FIGUESE C NR SEIAD VALLEY	F3 2355.00	46N/12W-04 M	F05C2	SEPT. 1971	47
BAIKL EDDON C A ORICK	F5 5100.00	10N/01E-04 H	F07A0	NOV. 1958	51
BAIKL MILON R A SOMESBAR	F3 4100.00	11N/06E-02 H	F05B1	NOV. 1958	47, 48, 59, 63
BAIKL MXY BAR C NR SOMESBAR	F3 4160.00	13N/06E-29 H	F05C1	NOV. 1971	49
BAIKL R NR FORT JONES	F2 5250.00	44N/10W-29 M	F05D2	DEC. 1958	28, 57, 61
BAIKL TID C NR SEIAD VALLEY	F3 2365.00	46N/12W-12 M	F05C3	SEPT. 1971	47
BAIKL TITA R AB YREKA C	F2 1055.00	45N/06W-06 M	F05E0	MAY 1973	27, 28, 57, 61
BAIKL TITA R NR GRENADE	F2 1350.00	44N/06W-23 M	F05E0	APR. 1947	28, 57, 61
BAIKL TITA R NR YREKA	F2 1050.00	46N/07W-24 M	F05E0	DEC. 1958	27, 57, 61
BAIKL TMI R NR CRESCENT CITY	F0 1300.00	16N/01E-11 H	F03C0	APR. 1951	27
BAIKL TILUP C NR SOMESBAR	F3 2270.00	14N/06E-14 H	F05C1	OCT. 1950	44
BAIKL TIPSON CR NR HAPPY CAMP	F3 1417.00	17N/08E-17 H	F05C2	APR. 1984	38
BAIKL TIEEK R NR SOMESBAR	F3 4170.00	13N/06E-16 H	F05C1	NOV. 1971	49
BAIKL TITY R A HOOPA	F4 1080.00	08N/04E-25 H	F06A1	APR. 1951	50, 63
BAIKL TITY R A LEWISTON	F4 1640.00	33N/08W-17 M	F06C1	APR. 1951	50, 63
BAIKL TITY R NR BURNET RH	F4 1376.00	05N/07E-19 H	F06A3	APR. 1958	50
BAIKL TIDUZEN R NR BRIGEVILLE	F6 5279.00	01N/02E-12 H	F11B3	APR. 1958	53, 59, 63
BAIKL TIAIER C NR SEIAD VALLEY	F3 4250.00	46N/11W-18 M	F05C3	SEPT. 1971	49

= Humboldt Base and Meridian
= Mount Diablo Base and Meridian

TABLE C-1
MINERAL ANALYSES OF SURFACE WATER

Lab and Sampler Agency Code

5050 – Department of Water Resources

Abbreviations and Constituents

TIME	– Pacific Standard Time on a 24-hour clock			
G. H.	– Instantaneous gage height in feet above an established datum			
Q	– Instantaneous discharge in cubic feet per second (E = Estimated)			
DO	– Dissolved oxygen content in milligrams per liter			
SAT	– Percent of normal dissolved oxygen saturation			
TEMP	– Water temperature at time of sampling in degrees Fahrenheit (F) or Celcius (C)			
Field	– Determined in the field			
Laboratory	– Determined in the laboratory			
pH	– Measure of acidity or alkalinity of water			
EC	– Electrical conductance in microseimens at 25°C			
Constituents:	B	Boron	K	Potassium
	CA	Calcium	MG	Magnesium
	CACO ₃	Calcium Carbonate	NA	Sodium
	CL	Chloride	NO ₃	Nitrate
	F	Fluoride	SIO ₂	Silica
			SO ₄	Sulfate

Boron, Fluoride, and Silica are reported in milligrams per liter. The other minerals are reported in each of three units; milligrams per liter, milliequivalents per liter, and percent reactance value; accordingly, each observation can use three lines of tabulation.

MILLIEQUIVALENTS PER LITER is the concentration in Mg/l divided by the equivalent weight of the ion.

PERCENT REACTANCE VALUE is determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter, arriving at a percentage.

TDS	– Gravimetric determination of total dissolved solids at 180°C			
SUM	– Total dissolved solids by summation of analyzed constituents minus 40 percent of analyzed constituents			
TH	– Total Hardness			
NCH	– Noncarbonate hardness – any excess of total hardness over total alkalinity			
TURB	– Jackson Turbidity Units measured with Hellege Turbidimeter (E) or a Hach Nephelometer (A) with (F) for field determinations			
SAR	– Sodium Adsorption ratio			
ASAR	– Adjusted sodium adsorption ratio			
REM	– Remarks; code letter are:			
	T – Total dissolved solids and the calculated sum of constituents are not within 20 percent of each other.			
	E – Total Dissolved Solids (TDS) value is not within the range of 0.35 to 0.70 of the electrical conductivity.			
	S – The anion sum and cation sum for a complete analysis is not within the prescribed tolerance of ± 5 percent.			

TABLE C-1
 MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	DO SAT	TEMP PH	FIELD EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃ SO ₄ CL H ₃ TURB SAR ASAR	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		B F TOS SUM YCH TH SAR PE				
							PERCENT REACTANCE	VALUE	6	8					
FO 1300.00 SMITH R NR CRESCENT CITY															
10/22/84 1700	5050 5050	0.65 075	11.3 101	50.9F 10.5C	7.8	125	--	--	--	--	--	--	--	1AF	--
12/03/84 1425	5050 5050	14.05 0110	12.3 108	46.2F 9.0C	7.3	82	--	--	--	--	--	--	--	3AF	--
02/05/85 1450	5050 5050	9.13 1010	10.1 9.0C	41.0F 8.0	7.4	111	6.0	9.0 .74	2.0 .09	--	.48	--	2.0 .06	4.0 1A	--
04/16/85 0730	5050 5050	10.69 2200	11.6 103	50.0F 10.0C	7.4	88	--	--	--	--	--	--	--	3AF	--
05/04/85 1720	5050 5050	9.44 1210	10.8 105	57.2F 14.0C	7.4	96	--	--	--	--	--	--	--	1AF	--
08/05/85 1640	5050 5050	7.77 360	10.1 113	69.8F 21.0C	8.2	137	--	--	--	--	--	--	--	1AF	--
09/30/85 1530	5050 5050	7.51 258	10.5 106	60.8F 16.0C	8.0	138	--	--	--	--	--	--	--	1AF	--
F2 R 132.3 222.6 O'INNELL RES NR OM															
09/22/85 1000	5050 5050	9.9 0	68.0F 119	8.3 20.0C	266	14	27	15	1.9	--	7.0 .15	6.0 .17	2.1	--	146 5
09/19/85 1300	5050 5050	9.4 0	63.0F 107	6.4 17.2C	345	16	28	19	2.2	--	8.0 .17	9.0 .25	4.2	--	155 5
F2 1050.00 SHASTA R NR TREKA															
10/23/84 1430	5050 5050	3.30 220	10.4 103	53.6F 12.0C	8.4	476	--	--	--	--	--	--	--	3A	--
11/26/84 1630	5050 5050	3.63 338	12.3 104	41.9F 5.5C	8.4	553	--	--	--	--	--	--	--	4AF	--
12/18/84 0945	5050 5050	3.74 304	12.0 99	40.1F 4.5C	8.4	510	30	32	37	--	247	--	19 .54	4.4 3A	--
01/08/85 1600	5050 5050	3.61 234	11.2 99	44.6F 7.0C	8.4	480	--	--	--	--	--	--	--	3AF	--
02/27/85 1200	5050 5050	3.68 264	11.9 109	47.3F 8.5C	8.6	430	--	--	--	--	--	--	--	4AF	--
03/12/85 1255	5050 5050	3.59 233	12.5 115	48.2F 9.0C	8.6	460	--	--	--	--	--	--	--	4AF	--
04/16/85 1535	5050 5050	4.16 107	9.5 105	62.6F 17.0C	8.6	534	--	--	--	--	--	--	--	3AF	--
05/08/85 1315	5050 5050	3.07 91	10.0 113	64.4F 18.0C	8.5	550	37	37	38	--	283	--	21 .59	4.2 3A	--
06/13/85 1420	5050 5050	2.84 92	9.2 123	80.6F 27.0C	8.6	591	--	--	--	--	--	--	--	3AF	--
07/09/85 1145	5050 5050	2.62 24	9.1 117	77.0F 25.0C	8.6	636	--	--	--	--	--	--	--	2AF	--
08/21/85 0620	5050 5050	2.73 37	9.0 99	62.6F 17.0C	8.6	615	--	--	--	--	--	--	--	1A	--
09/10/85 1129	5050 5050	3.48 210	9.5 99	57.2F 14.0C	8.4	585	--	--	--	--	--	--	--	7A	--
F2 1055.00 SHASTA R AB YREKA C															
10/23/84 1135	5050 5050	10.5 120E	51.8F 103	8.1	504	--	--	--	--	--	--	--	--	4AF	--
11/26/84 1645	5050 5050	12.0 200E	42.8F 104	8.2	546	--	--	--	--	--	--	--	--	6AF	--
12/18/84 0915	5050 5050	12.0 300E	39.2F 99	8.1	518	--	--	--	--	--	--	--	--	3AF	--
01/08/85 1625	5050 5050	12.5 200E	44.6F 9.7	8.3	489	28	30	39	--	235	--	21 .59	4.4 3A	--	194 0
02/27/85 1220	5050 5050	12.0 240E	45.4F 107	8.4	470	25	27	35	--	213	--	16 .51	4.4 4A	--	174 0

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE	TIME	SAMPLER	G.H.	DO	TEMP	FIELD	LABORATORY	MINERAL CONSTITUENTS IN	MILLIGRAMS PER LITER	MILLIEQUIVALENTS PER LITER	PERCENT REACTANCE VALUE	8	F	TOS	TM	SAR	REM			
			0	SAT		PH	EC	CA	MG	NA	K	CaCO ₃	504	CL	NOS	TURB	SIZ2	SUP	MCH	ASAR
F2 1055.00 SHASTA R AB YREKA C																				
POSEO CONTINUED																				
03/12/85	1305	5050	12.2	51.6F	8.4	447	--	--	--	--	--	--	--	--	--	--	44F	--		
		5050	119	11.0C																
04/16/85	1105	5050	11.1	51.6F	8.2	575	34	35	46	--	267	--	26	--	26	--	233	0	1.3	
		5050	121	16.0C	8.0	597	1.70	2.96	2.00		5.73	--	.73	2A	--					
05/06/85	1300	5050	12.1	60.8F	8.2	499	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	132	16.0C																
05/13/85	1050	5050	9.7	73.4F	8.3	649	49	50	54	--	322	--	.71	25	--	.6	--	928	1.3	
		5050	122	23.0C	7.7	653	2.45	4.11	2.35		6.43	--		3A	--				3.2	
07/09/85	1125	5050	9.5	77.0F	8.6	627	38	39	48	--	307	--	.73	26	--	.6	--	256	1.3	
		5050	125	25.0C	8.5	623	1.90	3.21	2.09		6.13	--		24	--				3.1	
08/19/85	1345	5050	10.3	71.6F	8.4	656	--	--	--	--	--	--	--	--	--	--	2AF	--		
		5050	127	22.0C																
09/10/85	1100	5050	9.0	58.1F	8.0	576	--	--	--	--	--	--	--	--	--	--	7AF	--		
		5050	106	95	14.5C															
F2 1350.00 SHASTA R NP GRENADE																				
POSEO																				
10/23/84	1115	5050	10.2	51.6F	7.9	442	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	125E	100	11.0C															
11/26/84	1230	5050	11.7	44.6F	7.9	491	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	205E	105	7.0C															
12/17/84	1330	5050	11.9	42.8F	8.0	457	--	--	--	--	--	--	--	--	--	--	2AF	--		
		5050	104	6.0C																
01/09/85	1150	5050	10.9	46.4F	8.0	449	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	250E	100	6.0C															
02/25/85	0940	5050	10.0	50.0F	5.9	426	23	29	34	--	203	--	.16	--	.4	--	177	0	1.3	
		5050	130E	95	10.0C	8.3	451	1.15	2.38	1.48		4.06	--	.51	24	--				
03/12/85	1140	5050	10.7	49.1F	8.2	437	21	26	32	--	198	--	.19	--	1.3	--	160	0	1.1	
		5050	120E	102	9.5C	8.6	437	1.05	2.14	1.39		3.92	--	.34	14	--			2.2	
04/16/85	1030	5050	9.5	52.6F	8.2	476	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	150E	136	17.0C															
05/08/85	1220	5050	12.1	60.8F	8.3	583	--	--	--	--	--	--	--	--	--	--	4AF	--		
		5050	125E	133	16.0C															
05/13/85	1210	5050	8.3	58.0F	8.1	494	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	52E	99	20.0C															
07/04/85	1050	5050	9.5	70.7F	8.2	476	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	100E	116	21.5C															
08/19/85	1305	5050	10.4	65.3F	8.2	462	--	--	--	--	--	--	--	--	--	--	2AF	--		
		5050	130E	120	14.5C															
09/10/85	12020	5050	6.9	58.1F	7.9	498	--	--	--	--	--	--	--	--	--	--	3AF	--		
		5050	130E	94	14.5C															
F2 5250.00 SCOTT R 42 FORT JONES																				
POSEO																				
11/26/84	1330	5050	13.0	39.2F	7.4	178	--	--	--	--	--	--	--	--	--	--	54	--	124	
		5050	558	103	4.0C															
01/08/85	1305	5050	9.05	12.9	41.0F	7.9	222	--	--	--	--	--	--	--	--	--	1AF	--		
		5050	334	110	5.0C															
03/12/85	1420	5050	9.14	11.3	49.1F	5.2	217	21	13	4.6	--	100	--	3.0	--	14	--	106	0.2	
		5050	335	109	9.5C	9.6	221	1.07	1.07	.17		2.00	--	.06	--	14	--	5	0.3	
05/04/85	1330	5050	6.68	9.9	58.1F	8.1	153	13	9.0	3.0	--	70	--	2.0	--	14	--	70	0.2	
		5050	538	125	14.5C	8.4	151	.65	.74	.13		1.40	--	.06	--	14	--	95	0.2	
07/09/85	1430	5050	5.25	5.9	73.4F	8.4	263	--	--	--	--	--	--	--	--	--	1AF	--		
		5050	83	113	23.0C															
09/12/85	1445	5050	4.44	7.6	50.0F	8.4	282	--	--	--	--	--	--	--	--	--	34	--	172	
		5050	33	129	15.5C															

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE# LAB	G.M. Q	TEMP 5AT	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN CA MG NA K CACO3	MILLIEQUIVALENTS PER LITER SO4 CL NO3 TUR SI02	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		TDS SUM	TH NCH	SAR ASAR	REN
							PERCENT REACTANCE VALUE	MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE	8	F				
F3 L 156.8 223.0 COPCO LK MR COPCO														
05/21/85 1800	5250 5050		13.6 0.0 160	65.9F 10.4C	6.3 1.37	10 .50 34 28	5.0 .41 2.52 .05 35 3	12 .52 2.0 35 3	-- -- -- -- --	9.0 .19 .08 -- --	2.0 -- -- -- --	46 -- -- -- --	0.0 -- -- -- --	
09/19/85 0845	5050 5050		7.0 0.0 76	54.4F 15.2C	7.4 200	12 .60 28	7.0 .58 .87 .08 41 4	20 27 3.1 -- 4	-- -- -- -- --	20 .42 4.0 .11 --	1.1 -- -- -- --	59 -- -- -- --	0.0 -- -- -- --	
F3 K 156.0 226.1 IRONGATE RES MR HORRBR00K														
05/22/85 0745	5050 5050		12.5 0.0 0	67.5F 19.0C	8.4 1.31	10 .50 35 28	5.0 .41 2.52 .05 33 3	11 2.0 -- -- --	-- -- -- -- --	7.0 .15 2.0 .06 --	1.0 3AF -- -- --	46 -- -- -- --	0.0 -- -- -- --	
08/19/85 0715	5050 5050		5.4 0.0 60	62.1F 16.7C	7.3 207	12 .60 29	7.0 .58 .87 .08 40 4	19 3.0 -- -- 4	-- -- -- -- --	18 .37 4.0 .11 --	1.1 3AF -- -- --	59 -- -- -- --	0.0 -- -- -- --	
F3 1395.00 KLANATH R & KLANATH GLEN														
12/22/84 1555	5050 5050		8.90 0.850	11.1 114	62.6F 17.0C	8.1 186	-- --	-- --	-- --	-- --	-- --	-- --	6AF -- --	-- --
12/03/84 1335	5050 5050		15.20 45900	12.2 103	46.4F 8.0C	7.4 128	-- --	-- --	-- --	-- --	-- --	-- --	21AF -- --	-- --
32/05/85 1335	5050 5050		8.83 0.70	14.5 6.3C	43.7F 8.3	157	-- --	-- --	-- --	-- --	-- --	-- --	3AF -- --	-- --
04/15/85 1845	5050 5050		13.59 33500	10.6 99	54.5F 12.5C	7.3 119	-- --	-- --	-- --	-- --	-- --	-- --	10AF -- --	-- --
05/04/85 1615	5050 5050		7.10 3300	10.4 107	62.6F 17.0C	7.0 149	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --
08/05/85 1255	5050 5050		6.79 3280	10.1 115	71.6F 22.0C	8.4 183	17 .85 46	8.0 .58 35	-- 1.50 1.59 19	78 1.56 -- --	-- .11 4.0 --	1.1 2AF -- --	76 0 0.4 0.5	-- -- -- --
09/30/85 1420	5050 5050		7.13 3980	11.9 124	63.5F 17.5C	6.3 193	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --
F3 1220.01 KLANATH R & ORLEANS														
10/02/84 1345	5050 5050		1.98 2850	11.1 116	62.6F 17.0C	6.2 229	-- --	-- --	-- --	-- --	-- --	-- --	1AF -- --	-- --
10/02/84 1720	5050 5050		10.3 107	62.6F 17.0C	6.1 230	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --
10/02/84 2110	5050 5050		9.5 99	62.6F 17.0C	5.3 231	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --
12/03/84 2640	5050 5050		9.7 97	59.5F 15.3C	8.1 235	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --
13/03/84 1605	5050 5050		1.97 2420	10.4 106	60.8F 16.0C	8.0 234	16 .80 33	10 .82 34	18 .78 33	90 1.80 --	-- .17 6.0 --	1.1 2AF -- --	81 0 0.9 1.2	-- -- -- --
10/22/84 1140	5050 5050		3.93 5820	11.2 107	55.4F 13.0C	8.0 191	13 .65 34	8.0 .66 34	14 .61 32	74 1.48 --	-- .11 4.0 --	1.1 74 7.0 --	66 0 0.7 0.9	-- -- -- --
02/26/85 1415	5050 5050		5.43 8280	12.7 108	46.0F 7.8C	7.8 148	-- --	-- --	-- --	-- --	-- --	-- --	3AF -- --	-- --
02/26/85 1750	5050 5050		12.5 104	45.0F 7.2C	8.0 152	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF -- --	-- --
02/26/85 2200	5050 5050		12.1 100	44.1F 6.7C	7.8 151	-- --	-- --	-- --	-- --	-- --	-- --	-- --	6AF -- --	-- --
02/27/85 0710	5050 5050		10.8 65	41.0F 5.0C	7.0 151	-- --	-- --	-- --	-- --	-- --	-- --	-- --	4AF -- --	-- --
02/27/85 1000	5050 5050		12.6 102	43.0F 6.1C	7.6 151	14 .70 42	8.0 .68 40	7.0 .30 18	-- 1.32 --	66 1.32 --	-- .06 2.0 --	1.1 2AF -- --	68 2 0.4 0.4	-- -- -- --
03/05/85 1315	5050 5050		13.6 113	43.7F 6.5C	6.8 157	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --
04/15/85 1415	5050 5050		9.99 19000	11.2 107	55.4F 13.0C	7.5 113	-- --	-- --	-- --	-- --	-- --	-- --	6AF -- --	-- --
05/13/85 1445	5050 5050		10.0 99	5d.0F 14.4C	7.7 131	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --
05/13/85 1630	5050 5050		10.5 102	57.0F 13.9C	8.0 134	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF -- --	-- --

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G+H 0 5AT	TEMP 00 5AT	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN CA Mg Na K Caco3 504 CL NOS	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		B F TOS TH SAR RES					
						PERCENT REACTANCE VALUE	MILLIEQUIVALENTS PER LITER	8	F						
F3 1220.01 Klamath R A ORLEANS F05A2 CONTINUED															
03/13/85 2140	5050 5050		10.6 104	57.2F 14.0C	8.2 132	--	--	--	--	--	--	2AF --			
03/14/85 0300	5050 5050		10.7 101	55.0F 12.2C	7.4 130	--	--	--	--	--	--	1AF --			
03/14/85 0335	5050 5050		10.9 104	55.0F 12.8C	7.9 126	--	--	--	--	--	--	2AF --			
03/14/85 1305	5050 5050		10.9 106	57.0F 13.9C	8.0 130	--	--	--	--	--	--	2AF --			
03/14/85 1635	5050 5050		10.5 105	59.4F 15.2C	8.1 131	--	--	--	--	--	--	2AF --			
03/14/85 2210	5050 5050		10.3 101	57.2F 14.0C	8.2 128	--	--	--	--	--	--	2AF --			
03/15/85 0605	5050 5050		10.3 97	54.0F 12.2C	7.7 7.9	129 126	12 .60 .46	5.0 .49 .37	5.0 .22 .17	1.14 1.14	--	2.0 .06 1A	--	54 0 0.3	S
03/15/d5 0830	5050 5050		10.5 100	55.0F 12.8C	7.4 127	--	--	--	--	--	--	2AF --			
03/15/85 1420	5050 5050		10.9 107	57.0F 14.4C	7.6 127	--	--	--	--	--	--	2AF --			
03/04/85 1200	5050 5120	3.59	10.6 108	60.8F 16.0C	7.9 149	--	--	--	--	--	--	1AF --			
03/12/85 1400	5050 5050	3.5	73.4F 16.0C	8.4 188	--	--	--	--	--	--	--	2AF --			
03/12/85 1745	5050 5050	9.2	71.6F 106	8.4 22.0C	186	--	--	--	--	--	--	3AF --			
03/12/85 2010	5050 5050	5.3	72.0F 96	8.3 22.2C	186	--	--	--	--	--	--	3AF --			
03/13/85 0540	5050 5050	6.1	70.0F 91	7.9 21.1C	187	--	--	--	--	--	--	3AF --			
03/13/85 0855	5050 5050	7.0	70.7F 1600E	8.4 21.5C	185	--	--	--	--	--	--	3AF --			
03/13/85 1430	5050 5050	9.4	72.5F 109	8.6 22.5C	186	--	--	--	--	--	--	3AF --			
03/13/85 1800	5050 5050	9.7	72.0F 112	8.6 22.2C	186	--	--	--	--	--	--	4AF --			
03/13/85 2040	5050 5050	8.4	71.6F 96	8.3 22.0C	185	--	--	--	--	--	--	3AF --			
03/14/85 0505	5050 5050	5.2	70.7F 93	5.2 21.5C	184	--	--	--	--	--	--	3AF --			
03/14/85 0920	5050 5050	6.9	71.6F 1530E	8.1 22.0C	186	15	8.0 .75 .39	12 .66 .34	12 .32 .27	1.79 1.79	--	4.0 .11 1A	--	70 0 0.6	S
03/14/85 1315	5050 5050	9.6	73.4F 112	8.3 23.0C	185	--	--	--	--	--	--	3AF --			
03/30/85 1050	5050 5050	1.8	62.6F 108	8.0 17.0C	206	--	--	--	--	--	--	2AF --			
F3 1302.00 Klamath R A SALMON RIVER F05A2															
10/02/84 1255	5050 5050	10.2	54.4F 109	6.2 46.0C	238	--	--	--	--	--	--	2AF --			
10/02/84 1750	5050 5050	16.0	63.5F 106	5.1 17.5C	239	--	--	--	--	--	--	1AF --			
10/12/84 2035	5050 5050	10.2	61.7F 105	5.4 17.5C	239	--	--	--	--	--	--	2AF --			
10/13/84 0540	5050 5050	9.9	59.4F 100	8.1 14.5C	239	--	--	--	--	--	--	2AF --			
10/13/84 0930	5050 5050	10.4	60.8F 106	7.9 14.0C	239	15	10 .75 .31	19 .82 .34	19 .83 .35	91 1.82	--	6.0 .17 2AF	--	78 0 0.9	S

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	I.M. D	DO SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K CDE TOK CL 703 TURB SI02 SUM TH NH ASAR REX	MILLIGRAMS PER LITER		MILLIEQUIVALENTS PER LITER		PERCENT RETENTION VALUE		b		F		TOS		TH		SAR		REX							
							PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM	PPM					
F3 1302.00 Klamath R AB SALMON RIVER																														
F05A2 CONTINUED																														
02/20/85 1315	5050 5050			12.7 106	45.0F 7.2C	7.9 160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
02/20/85 1710	5050 5050			12.6 106	45.0F 7.2C	7.8 160	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
02/26/85 2120	5050 5050			12.5 103	44.1F 6.7C	8.0 164	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF	--						
02/27/85 0930	5050 5050			12.0 92	39.0F 3.9C	8.1 157	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4AF	--						
02/27/85 0930	5050 5050			12.6 103	43.0F 6.1C	7.7 155	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4AF	--						
05/13/85 1400	5050 5050			10.5 104	58.0F 14.4C	7.8 147	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/13/85 1600	5050 5050			10.7 107	59.0F 15.0C	8.1 146	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/14/85 0430	5050 5050			10.6 101	55.0F 12.8C	7.8 148	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1AF	--						
05/14/85 0850	5050 5050			10.9 105	46.0F 13.3C	7.9 149	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/14/85 1210	5050 5050			10.6 105	58.0F 14.4C	8.1 145	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/14/85 1605	5050 5050			10.5 107	60.0F 16.2C	8.1 142	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/14/85 2115	5050 5050			10.5 104	58.1F 14.5C	8.1 146	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/15/85 0515	5050 5050			10.7 102	55.0F 12.8C	7.9 149	143	12	8.0 .60	6.0 .26	--	67 1.34	--	--	2.0 .06	--	1.0 1A	--	--	--	--	63 0	0.3 0.4	5						
05/15/85 1800	5050 5050			10.5 102	58.0F 13.3C	7.6 143	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/15/85 1340	5050 5050			10.6 111	62.0F 17.0C	8.0 145	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2AF	--						
05/12/85 1300	5050 5050			9.2 109	73.4F 23.0C	8.1 206	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
08/12/85 1700	5050 5050			8.5 105	75.2F 24.0C	8.5 184	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
08/12/85 1930	5050 5050			8.5 99	73.0F 22.0C	8.3 190	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
05/13/85 0500	5050 5050			8.6 97	70.0F 21.1C	8.2 192	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
19/13/85 0325	5050 5050			9.4 104	69.0F 21.0C	8.0 193	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
03/13/85 1310	5050 5050				72.5F 22.5C	9.5 204	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
09/13/85 1642	5050 5050			9.3 116	73.9F 23.9C	9.7 196	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
08/13/85 2010	5050 5050			9.7 101	72.5F 22.5C	9.3 199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						
09/14/85 0430	5050 5050			9.4 103	71.6F 22.0C	8.2 194	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4AF	--						
08/14/85 0835	5050 5050			9.2 105	70.7F 21.5C	9.0 194	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4AF	--						
09/14/85 1240	5050 5050			9.0 105	72.5F 22.5C	9.3 197	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5AF	--						
08/20/85 1315	5050 5050			9.3 105	70.7F 21.5C	8.5 195	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3AF	--						

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. D	DO SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃ SO ₄ CL N ₃ TURB SiO ₂	MILLIGRAMS PER LITER			MILLIEQUIVALENTS PER LITER			PERCENT REACTANCE VALUE			MILLIGRAMS PER LITER			
							8	F	TOS	TH	SAR	REY	8	F	TOS	TH	SAR	REY	
F3 1927.00 Klamath R Ab Ti Creek F05C1																			
10/02/84 1220	5050 5050			11.6 123	63.5F 17.5C	8.2 241	--	--	--	--	--	--	--	--	--	--	1AF	--	
10/02/84 1625	5050 5050			11.4 119	61.7F 16.5C	8.1 240	--	--	--	--	--	--	--	--	--	--	1AF	--	
10/02/84 2005	5050 5050			9.6 99	60.8F 16.0C	8.2 242	--	--	--	--	--	--	--	--	--	--	2AF	--	
10/03/84 0500	5050 5050			8.9 90	59.0F 19.0C	8.3 242	--	--	--	--	--	--	--	--	--	--	3AF	--	
10/03/84 0900	5050 5050			10.5 107	59.9F 15.5C	8.2 8.0	241 245	16 .60	10 .82	20 .87	--	.92 1.84	--	.6.0 .17	--	.1 2AF	--	81 0 1.4	
02/26/85 1250	5050 5050			12.9 108	44.1F 6.7C	0.0 7.0	157	--	--	--	--	--	--	--	--	--	--	3AF	--
02/26/85 1640	5050 5050			12.5 104	44.1F 6.7C	7.0 7.0	161	--	--	--	--	--	--	--	--	--	--	3AF	--
02/26/85 2100	5050 5050			11.6 95	43.0F 6.1C	8.0 8.0	161	--	--	--	--	--	--	--	--	--	--	4AF	--
02/27/85 0605	5050 5050			11.8 93	39.9F 4.4C	8.0 8.0	158	--	--	--	--	--	--	--	--	--	--	6AF	--
02/27/85 0900	5050 5050			12.1 98	42.0F 5.0C	7.5 8.1	164 172	15 .75	10 .82	9.0 .39	--	.73 1.46	--	3.0 .08	--	.0 2AF	--	78 6 0.4	
03/05/85 1420	5050 5050			13.0 107	42.8F 6.0C	6.8 6.8	174	--	--	--	--	--	--	--	--	--	--	2AF	--
05/13/85 1330	5050 5050			10.2 102	58.0F 14.4C	8.0 8.0	149	--	--	--	--	--	--	--	--	--	--	3AF	--
05/13/85 1525	5050 5050			10.8 108	58.0F 14.4C	8.2 8.2	148	--	--	--	--	--	--	--	--	--	--	2AF	--
05/13/85 2000	5050 5050			10.3 102	57.2F 14.0C	8.2 8.2	150	--	--	--	--	--	--	--	--	--	--	2AF	--
05/14/85 0400	5050 5050			9.8 93	54.0F 12.2C	7.6 7.6	151	--	--	--	--	--	--	--	--	--	--	2AF	--
05/14/85 0720	5050 5050			10.5 102	56.0F 13.3C	8.0 8.0	149	--	--	--	--	--	--	--	--	--	--	2AF	--
05/14/85 1145	5050 5050			10.5 104	57.0F 13.9C	8.1 8.1	147	--	--	--	--	--	--	--	--	--	--	2AF	--
05/14/85 1530	5050 5050			10.6 107	59.0F 15.0C	8.2 8.2	149	--	--	--	--	--	--	--	--	--	--	2AF	--
05/14/85 2030	5050 5050			9.8 96	56.3F 13.5C	8.2 8.2	146	--	--	--	--	--	--	--	--	--	--	2AF	--
05/15/85 0445	5050 5050			10.0 97	56.0F 13.3C	8.0 7.9	150 149	13 .65	8.0 .66	6.0 .26	--	.67 1.34	--	2.0 .06	--	.0 1A	--	66 0 0.3	
05/15/85 0650	5050 5050			9.9 95	55.0F 12.8C	7.6 7.6	145	--	--	--	--	--	--	--	--	--	--	2AF	--
05/15/85 1305	5050 5050			10.6 108	59.0F 15.5C	8.1 8.1	144	--	--	--	--	--	--	--	--	--	--	2AF	--
08/12/85 1230	5050 5050			9.3 110	73.4F 23.0C	8.2 8.2	197	--	--	--	--	--	--	--	--	--	--	3AF	--
08/12/85 1615	5050 5050			9.6 114	73.4F 23.0C	8.0 8.0	195	--	--	--	--	--	--	--	--	--	--	3AF	--
08/12/85 1905	5050 5050			8.4 98	72.5F 22.5C	8.3 8.3	194	--	--	--	--	--	--	--	--	--	--	4AF	--
08/13/85 0430	5050 5050			7.8 88	64.1F 20.6C	8.2 8.2	194	--	--	--	--	--	--	--	--	--	--	3AF	--
08/13/85 0800	5050 5050			8.5 96	66.0F 20.5C	8.1 8.1	194	--	--	--	--	--	--	--	--	--	--	5AF	--

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. O	DO SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K PPM	MILLIGRAMS PER LITER						MILLIGRAMS PER LITER												
							MILLIEQUIVALENTS PER LITER PERCENT PRACTICE VALUE						MILLIGRAMS PER LITER												
							CACO ₃	SO ₄	CL	Na ₂ 3	TUR ₆	SID ₂	SUM ₆	NCH ₆	SAR ₆	RE ₄									
							F05C1 CONTINUED																		
							KLAMATH R AB TI CREEK																		
08/13/85 1220	5050 5050	9.1 104	73.4F 23.0C	8.7	195	--	--	--	--	--	--	--	--	--	--	3AF	--								
08/13/85 1600	5050 5050	10.1 121	75.0F 23.0C	8.6	195	--	--	--	--	--	--	--	--	--	--	3AF	--								
08/13/85 1930	5050 5050	8.5 100	72.5F 22.5C	6.1	194	--	--	--	--	--	--	--	--	--	--	3AF	--								
08/14/85 0400	5050 5050	8.2 93	69.8F 21.0C	8.2	199	--	--	--	--	--	--	--	--	--	--	7AF	--								
08/14/85 0805	5050 5050	6.5 97	69.8F 21.0C	8.2	196	14 .70	9.0 .57	13 .57	--	83 1.65	--	5.0 .14	--	.1	2A	--	72 0	0.7 0.9							
08/14/85 1210	5050 5050	9.7 116	74.3F 23.5C	8.5	200	--	--	--	--	--	--	--	--	--	--	7AF	--								
08/20/85 1230	5050 5050	0.5 104	70.7F 21.5C	8.5	189	--	--	--	--	--	--	--	--	--	--	3AF	--								
							F05C1																		
							KLAMATH R AB OILLOW C																		
10/02/84 1150	5050 5050	10.0 114	62.6F 17.0C	8.1	247	--	--	--	--	--	--	--	--	--	--	1AF	--								
10/02/84 1600	5050 5050	10.4 110	62.6F 17.0C	8.0	248	--	--	--	--	--	--	--	--	--	--	1AF	--								
10/02/84 1940	5050 5050	10.0 103	60.8F 16.0C	8.0	245	--	--	--	--	--	--	--	--	--	--	2AF	--								
10/03/84 0420	5050 5050	9.5 97	59.9F 15.3C	8.3	246	--	--	--	--	--	--	--	--	--	--	3AF	--								
10/03/84 0835	5050 5050	9.8 99	59.4F 15.2C	8.0	246	--	--	--	--	--	--	--	--	--	--	2AF	--								
02/26/85 1210	5050 5050	12.0 107	44.1F 6.7C	7.8	176	--	--	--	--	--	--	--	--	--	--	4AF	--								
02/26/85 1610	5050 5050	9.0 83	44.1F 6.7C	7.7	175	--	--	--	--	--	--	--	--	--	--	4AF	--								
02/26/85 2040	5050 5050	11.8 97	43.0F 6.1C	8.0	173	--	--	--	--	--	--	--	--	--	--	4AF	--								
02/27/85 0515	5050 5050	11.2 96	39.9F 4.4C	8.1	167	--	--	--	--	--	--	--	--	--	--	4AF	--								
02/27/85 0645	5050 5050	12.1 99	43.0F 6.1C	7.6	181	14 .70	9.0 .74	9.0 .39	--	76 21	--	3.0 .08	--	.0	6A	--	72 0	0.5 0.6							
05/13/85 1245	5050 5050	10.4 103	56.0F 13.3C	7.9	153	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/13/85 1310	5050 5050	10.3 103	58.0F 14.4C	8.2	152	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/13/85 1925	5050 5050	10.1 102	59.0F 15.0C	8.1	153	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/14/85 0340	5050 5050	10.0 97	56.0F 13.3C	8.1	154	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/14/85 0750	5050 5050	10.0 97	56.0F 13.3C	8.1	152	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/14/85 1125	5050 5050	9.9 99	56.0F 14.4C	8.2	150	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/14/85 1510	5050 5050	10.5 108	60.8F 16.0C	6.1	151	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/14/85 1955	5050 5050	9.9 99	56.1F 14.5C	8.3	152	--	--	--	--	--	--	--	--	--	--	2AF	--								
05/15/85 0400	5050 5050	10.7 103	55.0F 12.8C	6.2	146	13 .65	6.0 .41	7.0 .30	--	69 1.38	--	3.0 .08	--	.0	1A	--	65 0	0.4 0.5							
05/15/85 0630	5050 5050	9.8 96	56.0F 13.3C	7.8	149	--	--	--	--	--	--	--	--	--	--	2AF	--								

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. 3	00 SAT	TEMP PM	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER			MILLIGRAMS PER LITER						
							PERCENT REACTANCE CACO ₃	SO ₄	CL	NO ₃	TURB	SiO ₂	TO ₅	TH	SAR	ASAR
F3 1330.00 KLAATH R AB OILLOW C																
05/15/85 1240	5050 5050	10.3 106	60.8F 16.0C	8.0	149	--	--	--	--	--	--	--	--	24F	--	
08/12/85 1210	5050 5050	9.5 115	75.2F 24.0C	8.3	192	--	--	--	--	--	--	--	--	3AF	--	
08/12/85 1530	5050 5050	9.5 114	73.4F 23.0C	8.4	196	--	--	--	--	--	--	--	--	3AF	--	
08/12/85 1845	5050 5050	8.7 102	72.5F 22.5C	8.3	196	--	--	--	--	--	--	--	--	9AF	--	
06/13/85 0410	5050 5050	7.9 99	69.1F 20.6C	8.2	198	--	--	--	--	--	--	--	--	3AF	--	
03/13/85 0730	5050 5050	9.4 97	70.7F 21.5C	8.0	195	--	--	--	--	--	--	--	--	3AF	--	
03/13/85 1150	5050 5050	9.1 108	73.4F 23.0C	8.6	197	--	--	--	--	--	--	--	--	3AF	--	
08/13/85 1520	5050 5050	9.5 113	74.3F 23.5C	8.6	196	--	--	--	--	--	--	--	--	3AF	--	
08/13/85 1920	5050 5050	8.8 105	74.3F 23.5C	8.1	199	--	--	--	--	--	--	--	--	3AF	--	
09/14/85 0340	5050 5050	8.1 92	69.8F 21.0C	8.4	200	--	--	--	--	--	--	--	--	6AF	--	
08/14/85 0735	5050 5050	8.1 93	70.7F 21.5C	8.2	198	--	--	--	--	--	--	--	--	6AF	--	
08/14/85 1145	5050 5050	9.5 116	76.1F 24.5C	8.5	198	--	--	--	--	--	--	--	--	7AF	--	
08/20/85 1145	5050 5050	9.0 100	57.1F 19.5C	8.5	191	--	--	--	--	--	--	--	--	3AF	--	
F3 1333.00 KLAATH R AB INDEPENDENCE CREEK																
10/01/84 1315	5050 5050	10.5 109	59.9F 19.5C	8.1	248	--	--	--	--	--	--	--	--	2AF	--	
10/11/84 1715	5050 5050	10.1 104	59.9F 19.5C	8.1	247	--	--	--	--	--	--	--	--	2AF	--	
10/01/84 2155	5050 5050	9.7 101	61.3F 16.3C	8.3	248	--	--	--	--	--	--	--	--	2AF	--	
10/02/84 0540	5050 5050	9.5 98	59.0F 15.0C	8.2	249	--	--	--	--	--	--	--	--	3AF	--	
10/02/84 0935	5050 5050	9.7 99	59.0F 15.0C	7.9	248	--	--	--	--	--	--	--	--	2AF	--	
10/02/84 1355	5050 5050	10.5 110	61.5F 16.4C	8.1	245	--	--	--	--	--	--	--	--	2AF	--	
02/25/85 1420	5050 5050	12.3 107	46.6F 8.0C	8.0	169	--	--	--	--	--	--	--	--	4AF	--	
02/25/85 2210	5050 5050	12.3 103	44.1F 8.7C	8.0	167	--	--	--	--	--	--	--	--	4AF	--	
02/26/85 0645	5050C 5050	11.8 95	41.0F 5.0C	8.0	168	--	--	--	--	--	--	--	--	4AF	--	
02/25/85 1430	5050 5050	12.4 101	42.1F 5.8C	7.9	166	--	--	--	--	--	--	--	--	4AF	--	
02/26/85 1445	5050 5050	12.1 99	42.0F 5.8C	8.1	178	471	15	10	9.0	--	75	--	3.0	--	2A	--
03/05/85 1500	5050 5050C	12.7 105	42.8F 6.0C	8.2	181	--	--	--	--	--	--	--	--	3AF	--	
05/13/85 1325	5050 5050	10.5 107	57.0F 13.9C	8.2	154	--	--	--	--	--	--	--	--	2AF	--	
05/13/85 1720	5050 5050	10.3 106	57.0F 15.0C	8.4	155	--	--	--	--	--	--	--	--	2AF	--	

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

TABLE C-1 (CONTINUED)
 MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	S.M. 3	DO SAT	TEMP °F	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃ SO ₄ CL	MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE	MILLIGRAMS PER LITER												
								B	F	TOS	TH	SAR	REN							
F3 1338.00																				
KLAATH 4 AB OAK FLAT CREEK																				
02/25/85 1400	5050 5050			11.7 102	46.4F 8.0C	8.1 186	--	--	--	--	--	--	--							
02/25/85 1910	5050 5050			12.1 133	45.0F 7.2C	7.8 180	--	--	--	--	--	--	--							
02/25/85 2145	5050 5050			11.9 100	44.1F 6.7C	8.1 195	--	--	--	--	--	--	--							
02/26/85 0620	5050 5050			11.8 94	39.9F 4.4C	8.1 182	--	--	--	--	--	--	--							
02/26/85 0930	5050 5050			12.3 101	42.1F 5.6C	7.9 181	--	--	--	--	--	--	--							
02/26/85 1400	5050 5050			12.7 104	2.0F 5.6C	8.1 180	15 175	10 .82	10 .44	80 1.60	--	3.0 .08	.1 3A							
05/13/85 1305	5050 5050			10.6 105	57.0F 13.9C	8.2 162	--	--	--	--	--	--	--							
05/13/85 1650	5050 5050			10.5 109	59.0F 15.0C	8.4 162	--	--	--	--	--	--	--							
05/13/85 2000	5050 5050			10.2 103	58.0F 14.4C	8.2 161	--	--	--	--	--	--	--							
05/14/85 0510	5050 5050			9.9 96	55.0F 12.8C	8.1 158	--	--	--	--	--	--	--							
05/14/85 0910	5050 5050			10.1 99	56.0F 13.3C	8.0 158	--	--	--	--	--	--	--							
05/14/85 1225	5050 5050			10.5 105	57.2F 14.0C	8.1 157	--	--	--	--	--	--	--							
05/14/85 1725	5050 5050			10.7 110	59.9F 15.5C	8.0 158	--	--	--	--	--	--	--							
05/14/85 2015	5050 5050			10.0 101	56.0F 14.4C	8.3 159	13 .95	8.0 .98	8.0 .95	--	72 1.44	--	--							
05/15/85 0520	5050 5050			9.9 95	55.0F 12.8C	7.8 155	--	--	--	--	--	--	--							
05/15/85 1125	5050 5050			10.4 104	57.2F 14.0C	8.2 153	--	--	--	--	--	--	--							
09/12/85 1710	5050 5050			9.3 113	75.2F 24.0C	8.7 195	--	--	--	--	--	--	--							
09/12/85 2140	5050 5050			8.2 98	73.9F 23.3C	8.4 201	--	--	--	--	--	--	--							
09/12/85 0515	5050 5050			8.3 95	69.8F 21.0C	8.2 200	--	--	--	--	--	--	--							
09/13/85 0705	5050 5050			9.1 120	73.4F 28.0C	8.3 207	--	--	--	--	--	--	--							
09/13/85 1325	5050 5050			9.2 119	73.0F 22.9C	8.6 202	--	--	--	--	--	--	--							
09/13/85 1705	5050 5050			9.0 114	75.1F 24.5C	8.9 199	--	--	--	--	--	--	--							
09/13/85 2110	5050 5050			8.1 98	75.0F 23.9C	9.0 197	--	--	--	--	--	--	--							
05/14/85 1530	5050 5050			8.1 93	70.3F 21.1C	7.8 202	--	--	--	--	--	--	--							
05/14/85 1040	5050 5050			8.7 102	74.6F 22.3C	8.3 202	14 .70	9.0 .74	15 .65	--	85 1.70	--	--							
05/14/85 1325	5050 5050			8.7 110	73.9F 23.3C	8.6 203	--	--	--	--	--	--	--							
09/14/85 1915	5050 5050			8.6 95	77.4F 25.0C	8.5 199	--	--	--	--	--	--	--							

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.4. O	DD SAT	TEMP 6.4. EC	FIELD LABORATORY	MINERAL CONSTITUENTS IN CA MS NA K CACO ₃ SO ₄ CL NO ₃ TURB S102 PERCENT REACTANCE VALUE	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER					
							B	F	TOS	IN	SAR	REY		
F3 1336.00 Klamath R. 40 OAK FLAT CREEK														
04/20/85 1025	5050 5050	0.8 101	69.8F 21.0C	8.6	193	-- -- -- --	--	--	--	--	--	--	4AF	--
F3 1395.00 Klamath R. 40 HAPPY CAMP														
10/01/84 1205	5050 5050	11.3 120	62.1F 16.7C	8.3	257	-- -- -- --	--	--	--	--	--	--	2AF	--
10/01/84 1625	5050 5050	11.0 117	62.1F 15.7C	9.3	253	-- -- -- --	--	--	--	--	--	--	2AF	--
10/01/84 2050	5050 5050	9.4 98	60.8F 16.0C	8.4	254	-- -- -- --	--	--	--	--	--	--	2AF	--
10/02/84 0450	5050 5050	8.8 91	60.1F 15.6C	5.1	252	-- -- -- --	--	--	--	--	--	--	3AF	--
10/02/84 0820	5050 5050	9.4 95	59.0F 15.0C	8.0	252	-- -- -- --	--	--	--	--	--	--	3AF	--
10/02/84 1310	5050 5050	11.8 123	60.1F 15.6C	8.3	252	16 .60 31	10 .82 32	22 .96 37	--	93 1,86	--	6.0 .17	.0 0AF	--
02/25/85 1300	5050 5050	13.8 121	40.4F 8.0C	8.3	194	-- -- -- --	--	--	--	--	--	--	4AF	--
02/25/85 1725	5050 5050	11.9 102	45.3F 7.2C	8.0	197	-- -- -- --	--	--	--	--	--	--	4AF	--
02/25/85 2115	5050 5050	11.5 99	45.0F 7.2C	7.9	201	-- -- -- --	--	--	--	--	--	--	4AF	--
02/26/85 0545	5050 5050	11.2 90	40.5F 4.7C	8.0	194	-- -- -- --	--	--	--	--	--	--	3AF	--
02/26/85 0920	5050 5050	12.7 105	42.1F 5.6C	8.1	193	-- -- -- --	--	--	--	--	--	--	0AF	--
02/26/85 1320	5050 5050	13.1 107	41.5F 5.3C	8.2	196	-- -- -- --	--	--	--	--	--	--	0AF	--
03/06/85 0855	5050 5050	13.1 108	41.4F 5.3C	8.6	204	-- -- -- --	--	--	--	--	--	--	4AF	--
05/13/85 1150	5050 5050	11.0 117	62.0F 15.7C	8.4	170	-- -- -- --	--	--	--	--	--	--	3AF	--
05/13/85 1600	5050 5050	10.4 111	54.0F 15.0C	5.2	170	-- -- -- --	--	--	--	--	--	--	2AF	--
05/13/85 1930	5050 5050	9.4 103	60.1F 15.6C	7.9	169	-- -- -- --	--	--	--	--	--	--	2AF	--
05/14/85 0440	5050 5050	9.5 95	59.0F 13.3C	8.4	168	-- -- -- --	--	--	--	--	--	--	3AF	--
05/14/85 0530	5050 5050	9.3 100	58.0F 14.4C	8.2	169	-- -- -- --	--	--	--	--	--	--	3AF	--
05/14/85 1215	5050 5050	10.5 112	59.0F 15.5C	8.2	168	-- -- -- --	--	--	--	--	--	--	3AF	--
05/14/85 1640	5050 5050	10.8 113	58.0F 16.0C	8.4	170	-- -- -- --	--	--	--	--	--	--	2AF	--
05/14/85 1940	5050 5050	10.0 103	57.0F 15.0C	8.0	168	16 .70 41	8.0 .66 39	6.0 .35 20	--	76 1,52	--	3.0 .06	.5 24	--
05/15/85 0440	5050 5050	9.2 98	56.0F 13.3C	7.9	160	-- -- -- --	--	--	--	--	--	--	2AF	--
05/15/85 1045	5050 5050	10.5 108	59.0F 15.0C	8.4	167	-- -- -- --	--	--	--	--	--	--	2AF	--
05/18/85 1635	5050 5050	11.4 140	75.2F 24.0C	8.7	201	-- -- -- --	--	--	--	--	--	--	4AF	--
05/12/85 2210	5050 5050	9.6 114	77.0F 22.2C	8.4	206	-- -- -- --	--	--	--	--	--	--	5AF	--
05/13/85 0440	5050 5050	7.1 82	69.0F 21.0C	8.4	208	-- -- -- --	--	--	--	--	--	--	7AF	--

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. D	DO SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃ SO ₄ CL NO ₃	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		REV		
							PERCENT REACTANCE	VALUE	B	F			
F3 1395.00 Klamath R AB Happy Camp													
08/13/85 0840	5050 5050		8.8 10.4	71.6F 22.0C	8.4	208	--	--	--	--	--	--	--
08/13/85 1240	5050 5050		10.3 124	73.9F 23.3C	8.8	205	--	--	--	--	--	--	--
08/13/85 1630	5050 5050		10.9 135	77.0F 25.0C	9.0	200	--	--	--	--	--	--	--
08/13/85 2035	5050 5050		8.2 99	73.9F 23.3C	8.8	203	--	--	--	--	--	--	--
09/14/85 0500	5050 5050		6.8 60	71.1F 21.7C	8.2	203	--	--	--	--	--	--	--
09/14/85 0955	5050 5050		9.2 111	73.4F 23.0C	8.3	201	--	--	--	--	--	--	--
09/14/85 1250	5050 5050		10.2 125	75.0F 23.9C	8.8	202	--	--	--	--	--	--	--
09/14/85 1725	5050 5050		10.1 126	75.0F 25.0C	8.6	201	--	--	--	--	--	--	--
09/20/85 0955	5050 5050		8.8 102	59.8F 21.0C	8.5	194	--	--	--	--	--	--	--
F3 1417.00 Thompson C HR Happy Camp													
10/02/84 1250	5050 5050		10.1 10E	55.0F 100	7.8 13.3C	133	--	--	--	--	--	--	--
09/28/85 1445	5050 5050		10.3 35E	42.0F 85	7.4 5.8C	87	--	--	--	--	--	--	--
05/16/85 0920	5050 5050		11.5 100E	49.1F 9.5C	7.5 7.8	87	7.0 35	6.0 4.9	2.0 0.09	.5 .01	.43 .85	1.0 .02	1.0 .3
09/15/85 1410	5050 5050		9.1 15E	68.0F 104	8.0 20.0C	124	--	--	--	--	--	--	--
F3 1425.00 Ft Goff C NR SE140 Valley													
10/02/84 1245	5050 5050		10.1 10E	54.0F 98	7.5 12.2C	125	9.0 4.5	0.0 .74	2.0 .09	--	.58 1.15	--	1.0 .03
02/25/85 1030	5050 5050		11.2 15E	42.0F 93	7.3 5.8C	75	--	--	--	--	--	--	--
09/15/85 0920	5050 5050		11.1 20E	48.2F 130	7.5 9.0C	78	--	--	--	--	--	--	--
09/15/85 1420	5050 5050		9.2 3E	65.3F 102	7.8 18.5C	112	--	--	--	--	--	--	--
F3 1430.00 Klamath R NR SE140 VLY													
10/01/84 1130	5050 5050		10.5 112	62.1F 16.7C	8.1	255	--	--	--	--	--	--	--
10/01/84 1800	5050 5050		10.4 111	62.1F 16.7C	8.1	252	--	--	--	--	--	--	--
10/01/84 2015	5050 5050		9.4 99	60.8F 16.0C	8.1	255	--	--	--	--	--	--	--
10/02/84 0420	5050 5050		9.3 94	60.1F 15.6C	8.2	255	--	--	--	--	--	--	--
10/02/84 0735	5050 5050		9.5 97	57.9F 14.4C	8.1	255	--	--	--	--	--	--	--
10/02/84 1230	5050 5050		10.5 112	62.1F 16.7C	8.1	255	--	--	--	--	--	--	--
10/03/84 1300	5050 5050		11.1 119	62.1F 16.7C	8.2	256	15	10	2.2	--	.95	--	6.0 .17
11/26/84 1435	5050 5050		13.2 7220	41.0F 108	7.7	192	--	--	--	--	--	--	--
12/17/84 1545	5050 5050		14.0 5540	40.1F 113	7.5	213	15	9.0	15	--	.82	--	5.0 .14
							.75	.74	.55	--	1.64	--	104
							35	35	30	--	--	--	74
													1.1 1.5

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. J	DO	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃ SO ₄ CL MDS	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER										
							MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE		B	F	TOS	TH	SAR	REM	SUM	MCH	ASAR	RE	
F3 1430.00 Klamath R NR SEIAD VLY																			
01/18/85 1405	5050 5050	3950	13.9 110	30.2F 4.0C	7.5 205	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	4AF --			
02/25/85 1230	5050 5050		12.2 105	45.0F 7.2C	8.2 200	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	4AF --			
02/25/85 1650	5050 5050		12.3 105	44.4F 6.9C	8.0 199	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	4AF --			
02/25/85 2025	5050 5050		12.1 104	44.4F 6.9C	8.2 200	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	5AF --			
02/26/85 0515	5050 5050		11.5 92	39.0F 4.4C	8.0 199	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	6AF --			
02/26/85 0855	5050 5050		12.0 99	42.1F 5.6C	7.9 195	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	5AF --			
02/26/85 1255	5050 5050		12.3 100	41.0F 5.0C	8.1 196	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	5AF --			
03/06/85 0945	5050 5050		12.3 102	41.4F 5.5C	8.5 210	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	5AF --			
03/12/85 1530	5050 5050		12.2 109	47.3F 8.5C	8.4 222	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	5AF --			
04/16/85 1340	5050 5050		10.0 99	55.4F 13.0C	7.7 141	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	6AF --			
05/13/85 1125	5050 5050		10.3 110	57.0F 13.9C	6.4 171	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF --			
05/13/85 1530	5050 5050		10.9 114	59.9F 13.5C	6.4 169	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF --			
05/13/85 1905	5050 5050		10.1 104	59.0F 15.0C	8.3 171	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF --			
05/14/85 0415	5050 5050		9.5 93	55.0F 12.8C	8.2 171	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF --			
05/14/85 0800	5050 5050		10.1 99	55.0F 12.6C	7.9 171	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF --			
05/14/85 1140	5050 5050		11.0 113	59.0F 15.0C	8.4 170	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF --			
05/14/85 1500	5050 5050		11.0 116	60.8F 16.0C	8.4 166	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF --			
05/14/85 1910	5050 5050		10.0 103	54.6F 15.0C	8.2 165	14 170	8.0 .70	9.0 .66	1.3 .39	0.03 22	1.50 2	75 1.50	6.0 .12	3.0 .08	.0 .00	.1 7	112 66	66 0	0.5 0.6
05/15/85 0415	5050 5050		9.6 96	56.0F 13.3C	8.0 170	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF --			
05/15/85 1025	5050 5050		10.7 106	57.2F 14.0C	6.2 168	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF --			
05/13/85 1340	5050 5050		9.9 2170	71.6F 22.0C	8.3 169	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF --			
07/04/85 1330	5050 5050		10.1 123	74.3F 23.5C	8.4 161	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1AF --			
08/12/85 1610	5050 5050		10.3 126	74.3F 23.5C	8.7 207	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	7AF --			
09/12/85 2245	5050 5050		7.6 91	72.0F 22.2C	8.4 204	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	6AF --			
09/13/85 0405	5050 5050		7.5 87	74.5F 21.0C	8.4 207	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	7AF --			
09/13/85 0815	5050 5050		8.7 101	74.5F 21.0C	8.1 203	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	6AF --			
09/13/85 1205	5050 5050		7.6 116	72.5F 22.5C	8.4 205	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	-- --	7AF --			

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. Q	DO SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA Mg Na K CACO ₃ SO ₄ CL NO ₃ TURB SiO ₂	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		PERCENT REACTANCE VALUE R F TOS TH SUM NCH ASAR RE												
							MILLIEQUIVALENTS PER LITER		MILLIEQUIVALENTS PER LITER														
							CA	Mg	Na	K	CACO ₃	SO ₄	CL	NO ₃	TURB	SiO ₂	SUM	NCH	ASAR	RE			
F3 1460.00 Klamath R A Sarah Totten Campground																F05C3 CONTINUED							
05/14/85 1445 5050 5050 10.0 59.0F 8.2 168 14 8.0 9.0 -- 7.6 -- 3.0 -- 1.6 -- 68 0 0.5																	5						
05/15/85 0945 5050 5050 9.3 54.0F 8.2 168 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 2AF --																							
05/15/85 0915 5050 5050 10.6 55.4F 8.2 169 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 3AF --																							
08/12/85 1540 5050 5050 10.1 76.1F 8.8 203 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 5AF --																							
08/12/85 2310 5050 5050 7.5 72.0F 8.4 210 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 3AF --																							
08/13/85 0945 5050 5050 7.6 68.0F 8.3 207 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 7AF --																							
08/13/85 0750 5050 5050 9.0 66.0F 8.1 237 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 5AF --																							
08/13/85 1135 5050 5050 9.2 71.1F 8.4 206 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 6AF --																							
08/13/85 1935 5050 5050 9.1 76.1F 8.6 215 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
08/13/85 1925 5050 5050 8.0 75.0F 8.6 199 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
08/14/85 0400 5050 5050 7.5 69.1F 7.8 203 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
08/14/85 0735 5050 5050 6.1 71.6F 7.9 204 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
08/14/85 1150 5050 5050 9.2 73.0F 8.3 209 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
09/14/85 1615 5050 5050 9.9 77.0F 8.5 216 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
08/20/85 0850 5050 5050 8.5 68.0F 8.6 197 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 3AF --																							
F3 1470.00 Klamath R AB Hamburg Res Site																F05C3							
10/23/84 1345 5050 5050 10.1 55.4F 7.5 193 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 7AF --																							
11/26/84 1915 5050 5050 12.9 41.0F 7.7 191 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 8AF --																							
12/17/84 1625 5050 5050 12.3 39.2F 7.5 209 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 8AF --																							
01/08/85 1435 5050 5050 12.6 39.2F 7.9 203 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
02/27/85 1030 5050 5050 12.2 39.2F 7.9 217 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 6AF --																							
03/12/85 1005 5050 5050 10.0 46.4F 8.2 225 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 6AF --																							
04/16/85 1430 5050 5050 9.8 59.0F 7.6 155 11 5.0 11 -- 62 -- 2.0 -- .1 -- 52 0 0.7																							
05/08/85 1445 5050 5050 11.2 57.2F 8.3 173 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							
06/13/85 1245 5050 5050 9.9 70.7F 8.3 183 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 3AF --																							
07/09/85 1255 5050 5050 10.1 73.4F 8.4 215 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 1AF --																							
09/20/85 0830 5050 5050 7.8 68.0F 8.6 200 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 3AF --																							
09/10/85 1300 5050 5050 9.5 64.4F 8.1 241 -- -- -- -- -- -- -- -- -- -- -- -- -- -- 4AF --																							

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE LAB	S.G. 00	SAT	TEMP PH	FIELD EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃	MILLIGRAMS PER LITER			MILLIGRAMS PER LITER			
							PERCENT SO ₄	REACTANCE CL	PERCENT NO ₃	B TURB S102	F TOS SUM	W NCH ASAR	R REN
F3 1575.00 Klamath R below Shasta R													
08/20/85 0740	5050 5050	7.9 21	67.1F 19.5C	8.6	195	--	--	--	--	--	--	--	--
F3 1585.00 Klamath R A R Collier Rest Stop													
03/22/85 0720	5050 5050	7.3 65	67.1F 19.5C	8.6	174	--	--	--	--	--	--	--	--
F3 1599.01 Klamath R Bl Iron St Om													
10/23/84 1245	5050 5050	9.6 4320	53.6F 12.0C	7.4	167	--	--	--	--	--	--	--	--
11/26/84 1550	5050 5050	12.5 5260	41.0F 5.0C	7.3	166	--	--	--	--	--	--	--	--
12/18/84 1010	5050 5050	13.4 3300	37.4F 3.0C	7.5	177	11 32	6.0 4.9	16 7.0	62 1.24	-- 1.24	4.0 1.11	1.0 10A	-- --
01/08/85 1530	5050 5050	13.5 2790	37.4F 3.0C	7.4	173	--	--	--	--	--	--	--	--
02/25/85 1030	5050 5050	11.3 1500	39.2F 4.0C	7.6	166	--	--	--	--	--	--	--	--
03/12/85 1220	5050 5050	11.3 2310	44.6F 7.0C	7.7	196	--	--	--	--	--	--	--	--
04/16/85 1145	5050 5050	9.7 4990	59.0F 15.0C	7.6	138	--	--	--	--	--	--	--	--
05/08/85 1345	5050 5050	10.5 1770	60.8F 16.0C	8.1	153	10 35	5.0 4.1	12 5.2	60 1.20	-- 1.20	3.0 1.06	4.2 4A	-- --
05/13/85 1120	5050 5050	10.7 902	64.4F 16.0C	8.4	166	--	--	--	--	--	--	--	--
07/09/85 1215	5050 5050	10.5 718	68.0F 26.0C	8.4	214	--	--	--	--	--	--	--	--
09/20/85 0940	5050 5050	7.5 92	69.6F 21.0C	9.6	170	--	--	--	--	--	--	--	--
08/20/85 0655	5050 5050	7.2 1010	69.8F 21.0C	8.6	171	--	--	--	--	--	--	--	--
04/10/85 1200	5050 5050	7.0 1810	64.4F 16.0C	7.8	199	--	--	--	--	--	--	--	--
F3 2260.00 Dillon C R Somesbar													
10/02/84 1140	5050 5050	10.8 24E	58.1F 14.5C	7.7	123	--	--	--	--	--	--	--	--
11/02/84 1355	5050 5050	10.5 105	59.1F 14.5C	7.7	121	--	--	--	--	--	--	--	--
10/02/84 1940	5050 5050	10.2 99	55.4F 13.0C	7.8	122	--	--	--	--	--	--	--	--
10/03/84 0425	5050 5050	10.1 95	53.6F 12.0C	7.7	123	--	--	--	--	--	--	--	--
10/03/84 0830	5050 5050	10.6 114	62.6F 17.0C	7.5	123	--	--	--	--	--	--	--	--
02/26/85 1215	5050 5050	12.6 102	42.1F 5.1C	7.3	74	--	--	--	--	--	--	--	--
02/26/85 1510	5050 5050	12.0 99	43.0F 5.1C	7.2	72	--	--	--	--	--	--	--	--
02/26/85 2040	5050 5050	12.1 103	43.0F 5.1C	7.2	71	--	--	--	--	--	--	--	--
02/27/85 0525	5050 5050	12.6 99	40.5F 4.7C	7.4	69	--	--	--	--	--	--	--	--
02/27/85 1750	5050 5050	12.7 102	41.5F 5.3C	7.2	73	--	--	--	--	--	--	--	--
05/13/85 1245	5050 5050	10.7 98	51.1F 10.4C	7.4	74	--	--	--	--	--	--	--	--

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	244 0	00 SAT	TEMP °F	FIELD LABORATORY PM EC	MINERAL CONSTITUENTS IN PPM CA Mg Na K CACO ₃ SO ₄ CL NO ₃ TURB S102 SUM NCH ASAR REQ	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER									
							*MILLIEQUIVALENTS PER LITER		PERCENT REACTANCE VALUE									
							F05C1 CONTINUED											
05/13/85 1905	5050 5050	2280.00		104.8 102	53.6F 12.0C	7.7 7.3	--	--	--	--	--	--	1AF	--		S		
05/13/85 1930	5050 5050			104.2 101	51.6F 11.0C	7.4 7.2	--	--	--	--	--	--	1AF	--		S		
05/14/85 0340	5050 5050			104.0 97	49.0F 9.4C	7.4 7.5	--	--	--	--	--	--	1AF	--		S		
05/14/85 0755	5050 5050			114.0 100	50.0F 10.0C	7.5 7.2	--	--	--	--	--	--	1AF	--		S		
05/14/85 1130	5050 5050			114.4 105	51.6F 11.0C	7.4 7.1	--	--	--	--	--	--	1AF	--		S		
05/14/85 1520	5050 5050			104.6 103	55.8F 13.2C	7.5 7.1	--	--	--	--	--	--	1AF	--		S		
05/14/85 2005	5050 5050			104.5 97	51.8F 11.0C	7.6 7.0	--	--	--	--	--	--	1AF	--		S		
05/15/85 0405	5050 5050			114.1 97	47.0F 8.3C	7.6 8.0	75	7.0 72	3.0 .35	2.0 .25	-- .09	.32 .54	--	1.0 .03	0.0 0A	--	30 0	0.2 0.1
05/15/85 0630	5050 5050			104.0 87	47.0F 8.3C	7.6 8.0	--	--	--	--	--	--	1AF	--		S		
05/15/85 1245	5050 5050			114.0 104	53.6F 12.0C	7.4 7.3	--	--	--	--	--	--	1AF	--		S		
09/12/85 1200	5050 5050			94.7 108	67.1F 10.5C	5.4 5.4	115	--	--	--	--	--	1AF	--		S		
08/12/85 1540	5050 5050			54.9 102	69.8F 21.0C	7.8 7.8	117	--	--	--	--	--	1AF	--		S		
08/12/85 1840	5050 5050			84.7 98	66.0F 20.0C	7.8 7.8	114	--	--	--	--	--	1AF	--		S		
05/13/85 0400	5050 5050			84.9 94	63.0F 17.2C	7.6 7.6	116	--	--	--	--	--	1AF	--		S		
05/13/85 0740	5050 5050			94.7 103	63.5F 17.5C	7.6 7.6	120	--	--	--	--	--	2AF	--		S		
09/13/85 1140	5050 5050			94.4 103	65.2F 19.0C	7.9 7.9	119	--	--	--	--	--	1AF	--		S		
09/13/85 1510	5050 5050			94.4 104	71.6F 22.0C	8.3 8.3	118	--	--	--	--	--	1AF	--		S		
09/13/85 1915	5050 5050			94.4 105	69.0F 20.0C	7.6 7.6	115	--	--	--	--	--	1AF	--		S		
08/14/85 0335	5050 5050			94.0 97	64.4F 18.0C	7.6 7.6	117	--	--	--	--	--	1AF	--		S		
05/14/85 0740	5050 5050			94.5 104	68.0F 25.0C	7.7 8.2	117	13 .65	5.0 .41	2.0 .09	-- 1.00	--	1.0 .03	0.0 0A	--	53 3	0.1 0.1	
03/14/85 1135	5050 5050			94.4 106	63.0F 20.5C	7.9 7.9	117	--	--	--	--	--	1AF	--		S		
							F05C1											
05/13/85 1125	5050 5050	2764.00		94.7 34	60.6F 1n.0C	7.5 5.2	110	13 .65	3.0 .25	4.0 .17	-- .90	--	1.0 .03	0.1 0A	--	45 0	0.3 0.2	
							F05C1											
03/15/85 1140	5050 5050	2255.36		94.5 28	59.3F 15.0C	7.4 5.1	91	10 .57	3.0 .28	3.0 .15	-- .76	--	1.0 .03	0.0 0A	--	36 0	0.2 0.2	
							F05C1											

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G+H 0 SAT	TEMP PM EC	FIELD LABORATORY	MINERAL CONSTITUENTS IN CA Mg Na K CALCOS	MILLIGRAMS PER LITER MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE 50% CALCOS	MILLIGRAMS PER LITER			TH	SAR	REN
							8	F	TOS			
F3 2270.00 SWILLUP C NR SONESBAR												
05/15/85 1550	5050 5050	11.0 15E	55.6F 105 12.0C	7.4 105	-- --	-- --	-- --	-- --	-- --	0AF	--	
08/15/85 1150	5050 5050	9.8 4E	60.8F 102 16.0C	7.5 8.2	132 138	13 .65 .66 45	8.0 13 46	3.0 1.18 9	.59 1.0 .03	.1 0A	-- --	
F3 2299.00 INDIAN C NR HAPPY CAMP												
10/02/84 1750	5050 5050	9.4 99	60.8F 16.0C	7.8 172	-- --	-- --	-- --	-- --	-- --	3AF	--	
02/26/85 1305	5050 5050	11.2 160E	42.0F 92 5.6C	7.3 112	-- --	-- --	-- --	-- --	-- --	1AF	--	
F3 2303.00 INDIAN C GL MILLPOW												
03/06/85 0835	5050 5050	13.0 103	39.2F 4.0C	8.4 122	-- --	-- --	-- --	-- --	-- --	1AF	--	
F3 2304.00 INDIAN C EF A MO												
10/02/84 1555	5050 5050	10.3 6E	55.4F 102 13.0C	7.6 123	-- --	-- --	-- --	-- --	-- --	1AF	--	
02/26/85 1245	5050 5050	11.2 30E	41.0F 92 5.0C	7.4 91	-- --	-- --	-- --	-- --	-- --	1AF	--	
F3 2305.00 INDIAN C A SF INDIAN C BR												
10/02/84 1730	5050 5050	9.5 95	56.3F 13.5C	7.5 171	-- --	-- --	-- --	-- --	-- --	1AF	--	
02/26/85 1225	5050 5050	10.9 40E	42.0F 91 5.6C	7.5 123	-- --	-- --	-- --	-- --	-- --	1AF	--	
F3 2306.00 INDIAN C SF A BR												
10/02/84 1700	5050 5050	9.7 101	59.0F 15.0C	7.8 106	-- --	-- --	-- --	-- --	-- --	1AF	--	
02/26/85 1210	5050 5050	11.0 91	41.0F 5.0C	7.4 97	-- --	-- --	-- --	-- --	-- --	1AF	--	
03/06/85 0830	5050 5050	12.6 100	36.3F 3.5C	8.4 93	-- --	-- --	-- --	-- --	-- --	1AF	--	
F3 2315.00 CLEAR C NR HAPPY CAMP												
10/01/84 1300	5050 5050	10.8 108	57.2F 14.0C	7.9 133	-- --	-- --	-- --	-- --	-- --	1AF	--	
10/01/84 1705	5050 5050	10.3 101	55.9F 13.3C	7.9 133	-- --	-- --	-- --	-- --	-- --	1AF	--	
10/01/84 2140	5050 5050	10.1 99	55.4F 13.0C	8.0 133	-- --	-- --	-- --	-- --	-- --	1AF	--	
10/02/84 0530	5050 5050	10.2 95	52.0F 11.1C	7.8 133	-- --	-- --	-- --	-- --	-- --	1AF	--	
10/02/84 0920	5050 5050	10.8 102	53.1F 11.7C	7.7 134	-- --	-- --	-- --	-- --	-- --	1AF	--	
10/02/84 1345	5050 5050	10.8 106	55.9F 13.3C	7.9 133	-- --	-- --	-- --	-- --	-- --	2AF	--	
02/25/85 1410	5050 5050	12.6 106	42.8F 6.0C	7.5 79	-- --	-- --	-- --	-- --	-- --	1AF	--	
02/25/85 1640	5050 5050	12.1 93	42.1F 5.6C	7.6 77	-- --	-- --	-- --	-- --	-- --	1AF	--	
02/25/85 2155	5050 5050	12.2 100	42.1F 5.6C	7.5 81	-- --	-- --	-- --	-- --	-- --	2AF	--	
02/26/85 0630	5050 5050	12.0 94	39.0F 3.9C	7.6 78	-- --	-- --	-- --	-- --	-- --	1AF	--	
02/26/85 1005	5050 5050	12.3 98	39.0F 4.4C	7.4 79	-- --	-- --	-- --	-- --	-- --	1AF	--	
02/26/85 1415	5050 5050	11.6 94	39.0F 4.4C	7.5 81	-- --	-- --	-- --	-- --	-- --	1AF	--	

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. O	DD SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃ SO ₄ CL MDS TURB SI02	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		REN	
							PERCENT REACTANCE C	PERCENT REACTANCE F	TDS SUM	TH NCH	SAR ASAR	
F3 2315.00 CLEAR C NR HAPPY CAMP												
05/13/85 1910	5050 5050			11.3 102	51.1F 10.6C	7.7 61	--	--	--	--	--	1AF
05/13/85 1705	5050 5050			10.4 102	52.7F 11.5C	7.6 60	--	--	--	--	--	1AF
05/13/85 2010	5050 5050			10.7 99	51.1F 10.6C	7.6 60	--	--	--	--	--	1AF
05/14/85 0920	5050 5050			10.9 97	49.0F 9.4C	7.3 60	--	--	--	--	--	1AF
05/14/85 1030	5050 5050			11.4 103	49.0F 9.4C	7.6 60	77	--	--	--	--	1AF
05/14/85 1315	5050 5050			11.1 105	52.7F 11.5C	7.6 60	--	--	--	--	--	1AF
05/14/85 1745	5050 5050			10.8 101	51.8F 11.0C	7.6 60	77	--	--	--	--	1AF
05/14/85 2030	5050 5050			10.1 95	52.3F 11.1C	7.2 61	77 78	4.0 2.0 24	7.0 5.98 71	1.0 0.4 5	.37 .74 .74	-- -- --
05/15/85 0530	5050 5050			10.3 90	47.0F 8.3C	7.2 60	--	--	--	--	--	1AF
05/15/85 1140	5050 5050			11.2 105	51.8F 11.0C	7.7 60	77	--	--	--	--	1AF
05/12/85 1725	5050 5050			9.3 106	68.9F 20.5C	8.0 60	127	--	--	--	--	1AF
08/12/85 2115	5050 5050			8.5 95	66.9F 19.4C	8.1 60	129	--	--	--	--	1AF
05/13/85 0530	5050 5050			9.1 97	62.6F 17.0C	7.5 60	129	--	--	--	--	1AF
05/13/85 0925	5050 5050			9.3 101	64.4F 18.0C	7.6 60	129	--	--	--	--	1AF
06/13/85 1337	5050 5050			9.1 104	69.1F 20.6C	8.2 60	128	--	--	--	--	1AF
08/13/85 2120	5050 5050			9.9 103	70.7F 21.5C	8.1 60	127	--	--	--	--	1AF
08/13/85 1140	5050 5050			8.6 108	66.0F 20.0C	8.1 60	128	--	--	--	--	1AF
08/14/85 1340	5050 5050			9.3 107	69.4F 20.8C	8.1 60	130	--	--	--	--	1AF
05/14/85 1830	5050 5050			8.8 101	69.9F 21.0C	8.0 60	129	--	--	--	--	1AF
F3 2317.00 OAK FLAT C NR HAPPY CAMP												
05/15/85 1240	5050 5050	2E		9.5 103	64.4F 18.0C	7.9 6.3	170 192	25 1.25 1.8	4.0 .33 .18	6.0 .26 .14	.71 1.42	-- -- --
F3 2325.00 COOM C NR SOMBAN												
02/26/85 1530	5050 5050				45.0F 7.2C	7.4 6.7C	92	--	--	--	--	1AF
F3 2328.00 LITTLE GRIDER C A HAPPY CAMP												
02/26/85 1425	5050 5050	12E		15.7 91	44.0F 6.7C	7.4 6.2	96	--	--	--	--	1AF
05/15/85 1310	5050 5050	3E		9.3 100	63.5F 17.5C	7.8 8.2	128	10 .50	6.0 .66	4.0 .17	.57 .14	-- .11 --
								38	50	13		
											56 1	0.2 0.2
											5	

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. 0	DO SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN DA MG NA K CACO ₃	MILLIGRAMS PER LITER			MILLIGRAMS PER LITER			
							PERCENT REACTANCE 504	PERCENT REACTANCE CL	PERCENT REACTANCE 403	B TOS SUM	E SI02 4CH	TH ASAR RE4	
F3 2329.00 INDIAN C AT MOUTH													
10/01/84 1235	5050 5050	25E	10.7 105	57.9F 14.4C	7.9 170	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
10/01/84 1640	5050 5050		13.0 101	57.9F 14.4C	8.6 170	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
10/01/84 2100	5050 5050		9.8 98	57.2F 14.0C	6.1 170	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
10/02/84 0500	5050 5050		8.9 87	55.4F 13.0C	7.8 170	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
10/02/84 0845	5050 5050		9.4 91	54.0F 12.2C	7.7 170	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
10/02/84 1320	5050 5050		10.3 102	55.9F 13.3C	7.9 170	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
10/03/84 1225	5050 5050	25E	10.7 110	59.0F 15.0C	8.0 170	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
02/25/85 1345	5050 5050		12.6 110	46.6F 8.0C	8.1 111	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
02/25/85 1750	5050 5050		11.6 96	42.1F 9.8C	7.5 110	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
02/25/85 2125	5050 5050		12.0 99	42.1F 5.8C	7.6 114	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
02/26/85 0605	5050 5050		12.4 97	38.5F 3.6C	7.8 110	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
02/26/85 0935	5050 5050		13.0 104	39.9F 4.4C	7.7 110	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --
02/26/85 1335	5050 5050		13.0 105	44.5F 4.7C	8.1 112	9.0 4.5	8.0 0.66	2.0 0.09	52 1.04	-- -- -- -- --	1.0 0.03	*C 1A	-- -- -- -- --
03/05/85 1530	5050 5050		12.3 101	41.8F 5.5C	6.8 117	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/13/85 1250	5050 5050		11.0 105	53.0F 11.7C	7.9 104	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/13/85 1625	5050 5050		10.6 102	55.4F 13.0C	7.8 106	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/13/85 1940	5050 5050		10.1 98	54.0F 12.2C	7.8 107	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/14/85 0500	5050 5050		11.2 99	47.0F 8.3C	7.5 104	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/14/85 0855	5050 5050		11.6 102	47.0F 6.3C	7.5 103	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/14/85 1235	5050 5050		11.1 105	52.7F 11.5C	7.8 103	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/14/85 1700	5050 5050		10.7 105	55.4F 13.0C	7.8 104	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/14/85 2000	5050 5050		10.0 97	54.0F 12.2C	8.2 102	9.0 4.5	6.0 0.66	2.0 0.09	49 0.9	-- -- -- -- --	1.0 0.03	*A 0A	-- -- -- -- --
05/15/85 0505	5050 5050		10.4 92	47.0F 6.3C	7.3 104	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	2AF	-- -- -- -- --
05/15/85 1105	5050 5050		11.4 105	50.0F 10.0C	7.5 102	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	1AF	-- -- -- -- --
05/15/85 1650	5050 5050		10.2 105	50.0F 20.5C	8.3 103	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	2AF	-- -- -- -- --
05/12/85 2200	5050 5050		9.2 92	56.4F 19.4C	8.2 103	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	2AF	-- -- -- -- --
05/13/85 0530	5050 5050		8.5 94	56.4F 18.0C	7.8 105	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	-- -- -- -- --	3AF	-- -- -- -- --

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE SEDIMENT

DATE TIME	SAMPLER LAB	G.N. Q	00 SAT	TEMP PH EC	FIELD LABORATORY				MINERAL CONSTITUENTS IN CA MG NA K CACO ₃				MILLIEQUIVALENTS PER LITER PERCENT REACTANCE VALUE				MILLIGRAMS PER LITER				
					EC	CL	M33	TUAB	8	F	TH MCH	SAR ASAR	REM					TOS SUM	TH MCH	SAR ASAR	
					FO5C2 CONTINUED																
08/13/85	3050 0895	F3	2329.00	INDIAN C AT MOUTH																	
08/13/85	3050 0895			9.5 108	66.2F 19.0C	7.9	168	--	--	--	--	--	--	--	--	--	--	--	2AF	--	
08/13/85	5050 1110			9.3 108	70.0F 21.1C	8.3	163	--	--	--	--	--	--	--	--	--	--	--	2AF	--	
08/13/85	5050 1650			9.0 104	69.8F 21.0C	8.4	163	--	--	--	--	--	--	--	--	--	--	--	2AF	--	
08/13/85	3050 2050			8.2 93	66.0F 20.0C	8.4	163	--	--	--	--	--	--	--	--	--	--	--	2AF	--	
08/14/85	5050 0910			8.5 94	66.0F 18.9C	7.3	164	--	--	--	--	--	--	--	--	--	--	--	2AF	--	
08/14/85	5050 1010			9.5 108	67.1F 19.5C	8.1	165	--	--	--	--	--	--	--	--	--	--	--	3AF	--	
08/14/85	5050 1205			9.2 108	71.1F 21.7C	8.3	165	--	--	--	--	--	--	--	--	--	--	--	3AF	--	
08/14/85	5050 1750			8.8 132	69.8F 21.0C	8.0	167	--	--	--	--	--	--	--	--	--	--	--	3AF	--	
		FO5C2																			
		FO5C2																			
02/28/85	3050 1015	F3	2355.00	PORTUGUESE C VR SEIAO VALLEY																	
				11.1 91	41.0F 5.0C	7.3	80	--	--	--	--	--	--	--	--	--	--	--	5AF	--	
08/15/85	5050 1435			9.2 3E	64.4F 101	7.7	129	9.0 .45	10 .82	2.0 .09	--	64 1.28	--	1.0 .03	--	0.0 0A	--	--	54 0	0.1 0.1	
		FO5C3																			
10/02/84	5050 1215	F3	2385.00	SEIAO C VR SEIAO VALLEY																	
				9.4 101	62.0F 16.7C	7.1	197	14 .70	15 .23	4.0 .17	--	91 1.82	--	3.0 .08	--	1.1 1A	--	--	95 5	0.2 0.3	
02/28/85	3050 1000			10.5 85	40.5F 4.7C	7.5	112	--	--	--	--	--	--	--	--	--	--	--	5AF	--	
08/16/85	5050 0940			10.4 101	53.6F 12.0C	7.4	107	7.0 .35	8.0 .68	.0 .00	.3 .01	51 1.02	2.0 .04	1.0 .03	.0 3	0.0 0	--	71 49	50 0	0.0 0.0	
08/15/85	5050 1450			7.9 94	71.6F 22.0C	7.3	181	--	--	--	--	--	--	--	--	--	--	--	5AF	--	
		FO5C3																			
		FO5B1																			
10/02/84	3050 1115	F3	4100.00	SALMON R & SONESBAR																	
				10.5 108	60.6F 18.0C	8.0	148	--	--	--	--	--	--	--	--	--	--	--	3AF	--	
10/02/84	3050 1705			10.4 108	61.7F 18.5C	8.0	148	--	--	--	--	--	--	--	--	--	--	--	1AF	--	
10/02/84	5050 2050			9.7 97	59.0F 19.0C	7.8	147	--	--	--	--	--	--	--	--	--	--	--	1AF	--	
10/03/84	5050 0955			9.7 94	56.3F 13.5C	7.8	147	--	--	--	--	--	--	--	--	--	--	--	1AF	--	
10/03/84	5050 0945			1.03 219	10.4 103	37.6F 14.2C	7.7	147	--	--	--	--	--	--	--	--	--	--	1AF	--	
10/22/84	5050 1205			2.36 424	11.5 104	50.9F 10.5C	7.6	129	15 .75	4.0 .33	3.0 .13	--	49 .98	--	2.0 .06	--	1.0 1A	--	77 5	54 0	0.2 0.2
02/28/85	5050 1335			4.19 1680	12.4 103	44.1F 6.7C	7.4	98	--	--	--	--	--	--	--	--	--	--	1AF	--	
02/28/85	5050 1730			12.1 99	43.0F 8.1C	7.3	99	--	--	--	--	--	--	--	--	--	--	--	1AF	--	
02/28/85	5050 2140			12.1 99	43.0F 6.1C	7.5	102	--	--	--	--	--	--	--	--	--	--	--	3AF	--	
02/27/85	5050 0655			11.9 93	39.9F 4.4C	7.7	99	--	--	--	--	--	--	--	--	--	--	--	1AF	--	
02/27/85	5050 0945			12.5 101	42.1F 5.8C	7.3	101	--	--	--	--	--	--	--	--	--	--	--	1AF	--	
04/15/85	5050 1440			6.21 4550	11.6 107	51.8F 11.0C	7.3	70	2.0 .35	1.0 .18	--	25 .50	--	1.0 .93	--	0.0 24	--	42 1	54 0	0.1 0.0	

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATERS

DATE TIME	SAMPLER LAB	G.H. Q	DO SAT	TEMP F P.H.	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN PPM CA Mg Na K CaCO ₃ SO ₄ Cl TURB	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		B F TOS SUM TN NCH SAR REV	
							PERCENT REACTANCE VALUE	503 403 504 CL 403 TURB 5102	PERCENT REACTANCE VALUE	503 403 504 CL 403 TURB 5102		
F3 4100.00 SALMON R & SONESBAR												
05/13/85 1420	5050 5050	10.3 95	53.1F 11.7C	7.4	76	--	--	--	--	--	--	1AF --
05/13/85 1615	5050 5050	12.0 94	54.0F 11.2C	7.6	78	--	--	--	--	--	--	1AF --
05/13/85 2110	5050 5050	11.1 104	53.6F 12.0C	7.8	79	--	--	--	--	--	--	1AF --
05/14/85 0440	5050 5050	11.2 101	52.0F 11.1C	7.2	77	--	--	--	--	--	--	1AF --
05/14/85 3405	5050 5050	11.0 100	51.1F 10.8C	7.5	78	--	--	--	--	--	--	1AF --
05/14/85 1225	5050 5050	11.0 104	54.0F 12.2C	7.6	76	--	--	--	--	--	--	1AF --
05/14/85 1520	5050 5050	10.7 103	55.8F 13.2C	7.5	76	--	--	--	--	--	--	1AF --
05/14/85 2140	5050 5050	10.5 100	54.5F 12.5C	7.8	75	--	--	--	--	--	--	1AF --
05/15/85 0335	5050 5050	10.8 97	50.0F 10.0C	7.3	78	9.0 4.5 64	2.0 1.0 2.0	2.0 0.9 1.9	34 68	--	1.0 .03	0A --
05/15/85 0810	5050 5050	10.7 96	50.0F 10.0C	7.2	74	--	--	--	--	--	--	1AF --
05/15/85 1405	5050 5050	11.0 106	55.4F 13.0C	7.4	75	--	--	--	--	--	--	1AF --
05/04/85 1230	5050 5050	3.5E 1340	11.0 109	58.1F 14.5C	7.5	80	--	--	--	--	--	1AF --
05/12/85 1390	5050 5050	9.3 107	71.6F 22.0C	3.2	137	--	--	--	--	--	--	1AF --
05/12/85 1720	5050 5050	9.0 107	74.3F 23.5C	5.1	139	--	--	--	--	--	--	1AF --
05/12/85 1945	5050 5050	8.6 99	71.1F 21.7C	3.3	136	--	--	--	--	--	--	1AF --
05/13/85 0520	5050 5050	8.7 94	66.0F 18.9C	7.3	137	--	--	--	--	--	--	1AF --
05/13/85 0840	5050 5050	9.3 101	65.2F 19.0C	7.7	138	--	--	--	--	--	--	1AF --
05/13/85 1330	5050 5050	9.2 106	71.5F 22.0C	8.0	137	--	--	--	--	--	--	1AF --
05/13/85 1710	5050 5050	9.2 105	73.0F 22.8C	8.1	138	--	--	--	--	--	--	1AF --
05/13/85 2020	5050 5050	9.5 97	70.7F 21.5C	5.2	137	--	--	--	--	--	--	1AF --
05/14/85 0450	5050 5050	8.8 95	66.2F 19.0C	7.8	137	--	--	--	--	--	--	1AF --
05/14/85 0550	5050 5050	1.7 101	9.3 19.0C	55.2F 7.4	138	--	--	--	--	--	--	1AF --
05/14/85 1250	5050 5050	9.2 105	71.6F 22.0C	8.1	137	--	--	--	--	--	--	1AF --
05/14/85 1705	5050 5050	1.7 105	10.3 19.0C	60.9F 7.6	138	--	--	--	--	--	--	1AF --
F3 4155.00 LAVING R & SONESBAR												
05/13/85 1445	5050 5050	10.9 91	52.7 102	7.5 11.5C	119	--	--	--	--	--	--	1AF --
05/13/85 1705	5050 5050	10.9 104	54.5F 12.5C	7.5	124	--	--	--	--	--	--	0AF --
05/15/85 1250	5050 5050	10.2 105	57.2F 14.0C	7.6	113	13 .55 54	4.0 .33 .22	5.0 1.08	53 1.08	--	2.0 .06	0A --
05/15/85 1705	5050 5050	10.2 101	57.2F 14.0C	7.6	115	13 .55 54	4.0 .33 .22	5.0 1.08	53 1.08	--	2.0 .06	0A --

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	6.4° Q	DO SAT	TEMP °F	FIELD LABORATORY PH EC	MINERAL CONSTITUENTS IN MILLIEQUIVALENTS PER LITER	MILLIGRAMS PER LITER																	
							CA	MG	NA	K	CaCO ₃	CL	NO ₃	TURB	DO ₂	SUM	TOC	TW	SAR	PER				
F3 4180.00 SANDY BAR C NR SOMESBAR																	F05C1							
																	DAF							
05/15/85 1515	5050 5050	11.0 15E	104 12.0C	53.6F 7.4	81	--	--	--	--	--	--	--	--	--	--	--	--	--						
03/15/85 1000	5050 5050	10.1 4E	102 15.0C	54.0F 7.6	112	16	4.0	4.0	--	1.57	--	1.0	--	4	--	52	0.2							
F3 4170.00 TI CREEK NR SOMESBAR																	F05C1							
																	DAF							
10/03/84 1100	5050 5050	10.9 13E	102 11.5C	52.7F 7.6	134	--	--	--	--	--	--	--	--	--	--	--	--							
02/26/85 1350	5050 5050	9.8 20E	82 6.7C	44.0F 5.0	107	14	4.0	4.0	--	51	--	1.0	--	4	--	52	0.2							
03/05/85 1350	5050 5050	12.5 100	100 5.0C	41.0F 6.0	112	--	--	--	--	--	--	--	--	--	--	--	--							
05/15/85 1330	5050 5050	11.1 10E	104 11.5C	52.7F 7.6	112	--	--	--	--	--	--	--	--	--	--	--	--							
08/15/85 1030	5050 5050	10.1 6E	102 15.0C	59.0F 7.0	130	--	--	--	--	--	--	--	--	--	--	--	--							
F3 4180.00 INDEPENDENCE C NR CLEAR CREEK																	F05C1							
																	DAF							
02/26/85 1500	5050 5050	10.5 30E	88 6.7C	44.0F 7.9	148	19	5.0	4.0	--	69	--	1.0	--	4	--	68	0.2							
05/16/85 1745	5050 5050	11.5 12E	102 9.0C	48.2F 7.9	136	17	4.0	2.0	1.1	64	3.0	1.0	.3	0	--	86	59							
08/15/85 1220	5050 5050	10.0 6E	104 16.0C	60.8F 7.9	165	--	--	--	--	--	--	--	--	--	--	--	--							
F3 4190.00 ELK C 4 MO A HAPPY CAMP																	F05C1							
																	DAF							
10/22/84 0950	5050 5050	11.1 24E	105 11.5C	52.7F 8.0	182	20	7.0	6.0	--	78	--	4.0	--	1	--	79	0.3							
02/26/85 1400	5050 5050	10.5 100E	86 5.6C	42.0F 7.5	120	--	--	--	--	--	--	--	--	--	--	--	--							
05/15/85 0815	5050 5050	11.5 100E	104 9.5C	49.1F 7.8	99	12	4.0	0	.8	46	2.0	1.0	.1	4	--	66	47							
08/15/85 1335	5050 5050	9.2 23E	105 21.0C	66.0F 9.1	100	--	--	--	--	--	--	--	--	--	--	--	--							
F3 4245.00 GRIDER C NR SEIAD VALLEY																	F05C3							
																	DAF							
F3 4250.33 VALIER C NR SEIAD VALLEY																	F05C3							
																	DAF							
02/26/85 0940	5050 5050	10.9 20E	86 3.3C	39.0F 7.7	149	--	--	--	--	--	--	--	--	--	--	--	--							
08/15/85 1515	5050 5050	9.2 5E	100 17.0C	62.6F 7.9	185	--	--	--	--	--	--	--	--	--	--	--	--							
F3 4253.00 O'NEILL C AT MOUTH																	F05C3							
																	DAF							
02/26/85 0900	5050 5050	10.5 10E	83 3.3C	38.0F 7.7	154	--	--	--	--	--	--	--	--	--	--	--	--							
05/16/85 1000	5050 5050	11.0 4E	103 10.5C	50.9F 7.9	153	--	--	--	--	--	--	--	--	--	--	--	--							
08/15/85 1600	5050 5050	9.1 2E	99 17.0C	52.6F 7.6	200	13	18	3.0	--	108	--	1.0	--	4	--	107	0.1							
F4 L 0440 245.9 CLAIR ENGLE LK NR FAIRVIEW BOAT RAMP																	F04D							
																	DAF							
05/21/85 1300	5050 5050	9.9 0	101 16.0C	54.4F 7.0	75	4.0	6.0	2.0	.4	--	1.0	1.0	--	4	--	34	0.0							
08/15/85 1415	5050 5050	9.0 0	104 14.0C	65.5F 7.6	84	4.0	5.0	2.0	.5	--	2.0	1.0	--	4	--	34	0.0							

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.M. O	DO SAT	TEMP PH	FIELD EC	MINERAL CONSTITUENTS IN CA MG NA K CALC S04 CL	MILLIGRAMS PER LITER			MILLIGRAMS PER LITER				
							PERCENT REACTANCE CALC	PERCENT REACTANCE S04 CL	PERCENT REACTANCE CALC	B MJS	F MJS	TDS MJS	TH MJS	SAR MJS
F4 1080.00 TRINITY R & MOOPA														
10/22/84 1045	5050 5050	12.89 1030	11.3 107	94.5F 12.5C	7.9 7.0	163 --	--	--	--	--	--	--	14F	--
12/03/84 1100	5050 5050	19.38 11000	12.6 107	46.4F 8.0C	7.8 7.0	144 --	--	--	--	--	--	--	19AF	--
04/15/85 1320	5050 5050	16.97 5790	10.8 105	57.2F 14.0C	7.6 7.0	126 --	--	--	--	--	--	--	4AF	--
06/04/85 1100	5050 5050	13.56 1540	10.0 106	64.4F 18.0C	7.7 7.0	152 --	--	--	--	--	--	--	14F	--
08/05/85 0940	5050 5050	12.14 779	9.4 108	71.6F 22.0C	7.8 8.3	160 161	18 19.0	7.0 .58	4.0 .17	.69 1.38	--	3.0 .06	0A	--
09/30/85 1000	5050 5050	11.69 563	9.8 102	62.6F 17.0C	7.9 7.0	162 --	--	--	--	--	--	--	14F	--
F4 1376.00 TRINITY R & NR BURNT AH														
10/22/84 0950	5050 5050	11.4 366	8.0F 104	30.0F 10.0C	7.0 7.0	134 --	--	--	--	--	--	--	14F	--
12/03/84 1005	5050 5050	12.3 3070	12.9 104	44.6F 7.0C	7.4 7.0	153 --	--	--	--	--	--	--	2AF	--
02/05/85 1030	5050 5050	12.6 871	12.6 99	39.2F 4.0C	7.5 8.1	155 156	17 .65	7.0 .38	4.0 .17	.67 1.34	--	3.0 .06	.1A	--
04/15/85 1205	5050 5050	10.8 2930	10.5 105	35.4F 13.0C	7.5 7.0	93 --	--	--	--	--	--	--	2AF	--
06/04/85 0930	5050 5050	9.8 771	9.8 104	62.6F 17.0C	7.9 7.0	128 --	--	--	--	--	--	--	14F	--
08/05/85 0850	5050 5050	9.2 528	9.2 102	66.2F 19.0C	7.6 7.0	121 --	--	--	--	--	--	--	1AF	--
09/30/85 0915	5050 5050	9.7 429	9.7 101	59.0F 19.0C	7.7 7.0	124 --	--	--	--	--	--	--	1AF	--
F4 1640.00 TRINITY R & LEVISTON														
10/22/84 0930	5050 5050	3.69 304	10.7 98	48.2F 9.0C	7.2 7.0	79 --	--	--	--	--	--	--	14F	--
12/03/84 0850	5050 5050	3.70 308	12.6 113	46.4F 8.0C	7.0 7.0	81 --	--	--	--	--	--	--	2AF	--
02/05/85 0910	5050 5050	3.73 336	11.6 100	43.7F 6.5C	7.4 7.0	87 --	--	--	--	--	--	--	0AF	--
04/15/85 1045	5050 5050	3.55 275	10.6 107	34.5F 12.9C	7.4 7.0	90 --	--	--	--	--	--	--	1AF	--
06/04/85 0825	5050 5050	3.62 303	10.3 103	35.4F 13.0C	7.6 7.0	83 --	--	--	--	--	--	--	14F	--
08/05/85 0730	5050 5050	3.95 453	10.7 103	51.6F 11.0C	7.5 8.2	82 82	4.0 .20	6.0 .49	2.0 .09	.38 .76	--	1.0 .03	0A	--
09/30/85 0500	5050 5050	3.73 355	11.0 100	47.3F 8.3C	6.4 6.0	80 --	--	--	--	--	--	--	1AF	--
F5 1100.00 MAO R & NR ARCATA														
10/22/84 1425	5050 5050	4.00 141	12.5 123	59.0F 15.0C	6.4 6.0	190 --	--	--	--	--	--	--	2AF	--
12/03/84 1210	5050 5050	8.55 5250	11.5 102	45.2F 9.0C	7.3 7.0	89 --	--	--	--	--	--	--	62AF	--
02/05/85 1205	5050 5050	4.32 220	4.32 6.0C	42.6F 6.0C	8.4 8.0	157 --	--	--	--	--	--	--	2AF	--
04/15/85 1710	5050 5050	4.62 372	11.3 103	57.2F 14.0C	7.4 7.0	132 --	--	--	--	--	--	--	4AF	--
06/04/85 1445	5050 5050	3.93 164	11.6 122	64.4F 18.0C	5.6 5.0	163 --	--	--	--	--	--	--	3AF	--
08/05/85 1355	5050 5050	3.71 31	8.7 105	67.1F 19.5C	5.6 8.0	190 200	2.0 1.40	5.0 .33	1.0 .22	.84 .168	--	3.0 .06	.1A	--
						72 17							06 3	0.2 0.3

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE LAB	G.4. Q	DO SAT	TEMP PH	FIELD LABORATORY	MINERAL CONSTITUENTS IN EC	MILLIGRAMS PER LITER						MILLIGRAMS PER LITER										
							CA	Mg	Na	K	CaCO ₃	SO ₄	CL	NO ₃	TURB	SILO2	SUM	TH					
F5 1100.00 MAD R R ARCALA																							
F0940 CONTINUED																							
09/30/85 1255	5050 5050	3.02 78	11.6 11.9	59.0F 19.0C	6.2	180	--	--	--	--	--	--	--	--	--	--	--	--					
F5 9100.00 EEO 0000 C A ORICK																							
F0740																							
10/22/84 1515	5050 5050	5.77 153	11.4 11.4	54.9F 19.5C	7.8	153	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F11A2																							
10/23/84 1010	5050 3050	10.6 744	58.1F 104	14.5C	7.9	293	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F112AF																							
02/05/85 1255	5050 5050	6.33 277	12.9 106	44.6F 7.0C	7.2	107	14	2.0	4.0	--	35	--	4.0	--	4.0	--	4.0						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
04/15/85 1750	5050 5050	6.92 625	10.4 97	54.5F 12.5C	7.4	90	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F4AF																							
06/05/85 0550	5050 5050	6.14 218	9.5 96	56.1F 14.5C	7.5	114	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F1AF																							
08/30/85 1345	5050 5050	5.30 16	10.0 113	66.2F 15.0C	7.1	140	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
09/30/85 1345	5050 5050	5.28 16	11.4 113	59.0F 15.0C	7.3	127	16	3.0	6.0	--	52	--	7.0	--	7.0	--	7.0						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
10/23/84 1010	5050 3050	10.6 744	58.1F 104	14.5C	7.9	293	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F112AF																							
02/06/85 1010	5050 5050	12.4 1540	40.4F 105	7.6	206	--	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F3AF																							
08/05/85 0845	5050 5050	13.2 573	67.1F 143	8.5	207	--	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
08/06/85 0945	5050 5050	8.7 83	70.7F 98	8.4	288	35	10	10	--	127	--	6.0	--	7.1	--	129	0.4						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
10/24/84 0730	5050 5050	10.0 207	57.2F 97	14.0C	7.7	313	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F3AF																							
12/04/84 1030	5050 5050	11.1 11400	47.3F 95	8.5C	7.5	131	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F3AF																							
04/17/85 0845	5050 5050	10.0 2510	57.2F 97	14.0C	7.6	163	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F3AF																							
05/05/85 0925	5050 5050	9.9 287	6.0F 109	20.0C	6.2	222	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
08/06/85 1015	5050 5050	10.9 24	71.6F 123	22.0C	8.3	273	35	9.0	8.0	--	114	--	5.0	--	5.2	--	125						
F6 1329.50 EEL R A OUTLET C NO 005 RIOS																							
F11F2																							
10/24/84 005	5050 5050	10.7 15	55.4F 105	13.0C	8.1	266	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F1AF																							
12/04/84 1145	5050 5050	11.5 1200	47.3F 101	8.5C	7.5	133	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
02/08/85 1535	5050 5050	12.1 139	43.7F 101	8.5C	7.9	179	--	--	--	--	--	--	--	--	--	--	--						
F6 1100.00 EEL R A SCOTIA																							
F2AF																							
04/17/85 1110	5050 5050	13.4 181	54.9F 107	14.5C	9.0	183	--	--	--	--	--	--	--	--	--	--	--						

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	00 SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃ SO ₄ CL	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		B TDS SU	F NO ₃ TJR ₆	TOC 5102 NCH	TH ASAR RE4	
							PERCENT EQUIVALENTS PER LITER	PERCENT EQUIVALENT VALUE	B TDS SU	F NO ₃ TJR ₆					
F6 1329.50 EFL R #3 OUTLET C NR 003 R105															
05/05/85 1150	5050 5050	0.7 25	115 115	73.4F 23.0C	E.5 E.5	201 201	-- --	-- --	-- --	-- --	-- --	-- --	-- --	ZAF ZAF	-- --
08/06/85 1255	5050 5050	10.3 3.3	128 128	80.6F 27.0C	8.2 8.2	217 223	22 1.10	8.0 .66	11 21	86 1.68	-- --	5.0 1.14	-- --	1A 1A	-- --
F5 1350.00 OUTLET C NR LONGVALE															
10/24/84 0935	5050 5050	13.3 2.0	100 100	34.5F 12.5C	7.9 8.3C	346 91	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1AF 1AF	-- --
12/04/84 1240	5050 5050	11.5 73.9	104 104	47.3F 8.3C	7.1 7.1	91 179	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1AF 1AF	-- --
02/06/85 1330	5050 5050	10.3 5.5	89 89	42.6F 6.0C	7.5 7.5	179 168	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF 3AF	-- --
04/17/85 1102	5050 5050	11.3 7.6	107 107	60.8F 16.0C	9.0 9.0	168 228	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF 3AF	-- --
06/05/85 1135	5050 5050	10.9 14	121 121	66.2F 14.0C	9.5 9.5	228 283	-- 25	-- .90	-- .78	-- 1.17	-- --	-- 17	-- .48	1A 1A	-- --
08/06/85 1230	5050 5050	11.4 .5	147 147	80.6F 27.0C	8.4 8.5	283 292	25 1.25	11 .90	18 .78	2.34 27	-- --	1.7 1.68	-- --	1A 1A	103 0
F6 3309.01 EFL R #4 005 R105															
10/24/84 1030	5050 5050	6.78 85	10.9 105	55.4F 13.4C	8.1 7.9	273 277	31 1.95	9.0 .74	10 .44	9.0 1.80	-- --	9.0 .25	-- --	2A 2A	-- --
12/04/84 1305	5050 5050	13.13 2910	14.2 102	43.7F 6.5C	7.7 7.6	135 200	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF 2AF	-- --
02/06/85 1305	5050 5050	6.39 354	12.8 102	40.1F 4.3C	7.6 7.6	200 200	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1AF 1AF	-- --
04/17/85 1133	5050 5050	8.26 105	10.8 105	55.4F 13.0C	7.7 7.6	137 138	17 .85	9.0 .41	4.0 .17	58 1.16	-- --	1.0 .03	-- --	3A 3A	63 5
05/23/85 1230	5050 5050	9.34 136	10.6 117	64.2F 19.0C	8.5 8.5	192 294	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF 2AF	-- --
05/26/85 1310	5050 5050	4.86 1+	10.1 129	79.7F 26.5C	8.7 8.4	294 294	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1AF 1AF	-- --
F6 3050.00 MILL C NR COVelo															
12/04/84 1340	5050 5050	11.4 55E	44.0F 98	7.0C	7.3	151 151	-- --	-- --	-- --	-- --	-- --	-- --	-- --	12AF 12AF	-- --
02/06/85 1440	5050 5050	4.0E	40.4F 4.0C	8.3 8.2	321 341	31 1.55	20 1.64	9.0 .39	1.62 3.24	-- --	5.0 .14	-- --	-- --	3A 3A	160 0
04/17/85 1215	5050 5050	2.9 20E	61.7F 105	7.9 16.5C	7.9 7.6	271 271	-- --	-- --	-- --	-- --	-- --	-- --	-- --	3AF 3AF	-- --
05/05/85 1300	5050 5050	9.6 3c	10.3 116	73.4F 23.0C	9.1 9.1	362 321	-- --	-- --	-- --	-- --	-- --	-- --	-- --	2AF 2AF	-- --
F5 3120.01 EFL R #4 BLACK BUTTE #															
10/24/84 1145	5050 5050	11.3 90c	53.0F 107	8.1 12.0C	8.0 8.0	202 205	24 1.20	5.0 .41	9.0 .39	56 1.32	-- --	11 .32	-- --	1A 1A	80 19
12/04/84 1430	5050 5050	12.3 300E	41.0F 102	7.5C	7.3	101 101	-- --	-- --	-- --	-- --	-- --	-- --	-- --	4AF 4AF	-- --
02/05/85 1430	5050 5050	12.0 73E	46.4F 134	7.4 4.5C	9.1 9.1	143 142	18 .90	4.0 .33	4.0 .17	55 1.10	-- --	3.0 .36	-- --	1A 1A	62 7
04/17/85 1310	5050 5050	11.1 650E	41.8F 105	7.5 11.0C	7.6 7.6	94 93	12 .60	2.0 .16	2.0 .09	39 .78	-- --	1.0 .03	-- --	2A 2A	38 0
05/05/85 1340	5050 5050	10.7 303E	55.2F 121	8.4 19.0C	8.4 8.4	165 165	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1AF 1AF	-- --
05/06/85 1400	5050 5050	10.7 2E	46.6F 145	8.6 27.0C	8.6 8.6	321 321	-- --	-- --	-- --	-- --	-- --	-- --	-- --	1AF 1AF	-- --

TABLE C-1 (CONTINUED)
MINERAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLER LAB	G.H. O	OO SAT	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG MA K CACO ₃ SO ₄	MILLIGRAMS PER LITER			MILLIGRAMS PER LITER						
							PERCENT REACTANCE CL	WHD M03	TURB S102	SUM NOM	TH ASAR	SAR	RE4			
F6 3200.00 BLACK BUTTE R NR COVelo																
10/24/84 1140	5050 5050	10.7 10E	109 100	57.2F 14.0C	7.9 8.1	303 304 2,30 72	46 .55 .30 10	7.0 .30 7.0 9	7.0 .30 7.0 9	-- -- -- --	97 1,94 1,94 1,94	-- -- -- --	5.0 .08 14 --	-- -- -- --	187 144 147 0.3	
12/04/84 1420	5050 5050	11.9 99	41.9F 5.5C	7.4	145	--	--	--	--	--	--	--	--	--	--	134F --
02/08/85 1400	5050 5050	12.3 105	42.8F 6.0C	7.7	201	29 1,45 71	5.0 .41 .20	4.0 .17 8	-- -- --	77 1,54 1,54	-- -- --	2.0 .08 24	-- -- --	-- -- --	93 15 0.3	
04/17/85 1325	5050 5050	10.6 103	53.6F 12.0C	7.6	136	18 .90 .70	3.0 .25 .20	3.0 .13 10	-- -- --	50 1,00 1,00	-- -- --	1.0 .03 44	-- -- --	-- -- --	82 58 0.2	
06/05/85 1345	5050 5050	10.7 128	71.6F 22.0C	8.4	213	--	--	--	--	--	--	--	--	--	--	2AF --
08/06/85 1405	5050 5050	9.6 130	84.2F 29.0C	8.6	254	--	--	--	--	--	--	--	--	--	--	1AF --
F6 4100.00 EEL R SF NR MIRANDA																
10/24/84 0800	5050 5050	4.85 120	9.4 91	56.3F 15.5C	7.8	245 247 54	27 1,35 30	9.0 .74 .39	9.0 .39 16	-- -- --	94 1,88 1,88	-- -- --	7.0 .20 24	-- -- --	-- -- --	105 11 0.4
12/04/84 1100	5050 5050	9.08 5450	11.4 100	49.1F 9.5C	7.3	112	--	--	--	--	--	--	--	--	--	61AF --
02/06/85 1115	5050 3840	5.90 384	12.3 104	46.4F 8.0C	7.8	174	--	--	--	--	--	--	--	--	--	1AF --
04/17/85 0920	5050 5050	6.74 604	10.2 97	55.4F 13.0C	7.6	160	17	6.0 .49 .30	7.0 .30 10	-- -- --	68 1,36 1,36	-- -- --	3.0 .08 14	-- -- --	-- -- --	87 0 0.4
06/05/85 1000	5050 5050	6.01 175	10.0 112	69.8F 21.0C	8.3	196	--	--	--	--	--	--	--	--	--	2AF --
08/06/85 1045	5050 5050	5.67 43	9.3 106	71.6F 22.0C	8.2	203	--	--	--	--	--	--	--	--	--	1AF --
F6 5279.00 VAN OUZEN R NR BRIDGEVILLE																
10/23/84 0915	5050 5050	2.41 67	11.1 105	54.3F 12.5C	7.9	234 236 64	30 1,50 25	7.0 .58 .26	6.0 .26 11	-- -- --	86 1,72 1,72	-- -- --	4.0 .11 24	-- -- --	-- -- --	139 104 0.3
12/04/84 0925	5050 5050	5.27 1720	12.1 99	43.7F 6.5C	7.1	109	--	--	--	--	--	--	--	--	--	30AF --
02/06/85 0920	5050 5050	3.52 126	12.3 98	41.9F 5.5C	7.6	172	21	5.0 .41 .25	4.0 .17 10	-- -- --	69 1,38 1,38	-- -- --	2.0 .06 34	-- -- --	-- -- --	73 4 0.2
04/16/85 1030	5050 5050	3.82 372	11.3 109	55.4F 13.0C	7.5	141	17	5.0 .85 .59	4.0 .17 12	-- -- --	58 1,16 1,16	-- -- --	2.0 .06 24	-- -- --	-- -- --	82 5 0.2
06/05/85 0755	5050 5050	2.69 98	10.2 108	64.4F 18.0C	8.0	190	--	--	--	--	--	--	--	--	--	2AF --
08/06/85 0855	5050 5050	2.23 8.9	8.7 95	67.1F 19.5C	7.9	268	--	--	--	--	--	--	--	--	--	2AF --
F7 1100.00 MATTOLE R NR PETROLIA																
10/23/84 1240	5050 5050	3.96 92	12.0 120	59.9F 15.5C	8.5	257 256 70	35 1,75 16	5.0 .41 .35	8.0 .26 14	-- -- --	80 1,60 1,60	-- -- --	5.0 .14 24	-- -- --	-- -- --	157 108 0.3
04/16/85 1345	5050 5050	4.79 102	13.3 15.0C	59.0F 7.4	8.0	20 164 81	40 1.00 20	7.0 .33 .30	7.0 .30 18	-- -- --	59 1,18 1,18	-- -- --	3.0 .08 14	-- -- --	-- -- --	103 66 0.4
F7 2100.00 MATTOLE R NR PETROLIA																
10/23/84 1230	5050 5050	10.1 103	64.7F 16.5C	7.9	340	--	--	--	--	--	--	--	--	--	--	1AF --
04/16/85 1325	5050 5050	10.2 40E	57.2F 14.0C	7.9	235	--	--	--	--	--	--	--	--	--	--	3AF --
F7 5100.00 BEAR R & CAPE TOWN																
10/23/84 1120	5050 5050	11.5 18E	59.0F 15.0C	8.1	321 320 70	46 2.30 15	6.0 .49 .48	11 .17 .15	-- -- --	93 1,60 1,60	-- -- --	7.0 .20 24	-- -- --	-- -- --	198 140 0.4	
04/16/85 1235	5050 5050	10.6 80E	57.2F 14.0C	8.0	202 1,30	26 +.33 66	4.0 .35 .35	8.0 17 18	-- -- --	-- -- --	-- -- --	5.0 .14 14	-- -- --	-- -- --	82 67 0.0	

TABLE C-2
MINOR ELEMENT ANALYSES OF SURFACE WATER

Lab and Sampler Agency Code

5050	- California Department of Water Resources Abbreviations
TIME	- Pacific Standard Time on a 24-hour clock
EC	- Electrical conductance in microseimens at 25 °C
TEMP	- Water temperature at time of sampling in degrees Fahrenheit (F) or Celsius (C)
pH	- Measure of acidity or alkalinity of water
CHROM (ALL)	- All Chromium
CHROM (HEX)	- Hexavalent Chromium
D	- Dissolved
T	- Total

TABLE C-2
MINOR ELEMENT ANALYSES OF SURFACE WATER

DATE	TIME	SAMPLE	FC	TEMP	PH	ARSENIC	CONSTITUENTS IN MILLIGRAMS PER LITER								MERCURY	SELENIUM	SILVER	ZINC
							PARIUM	CHROM (ALL)	COPPER	IRON	LEAD	MANGANESE	CHROM (MEX)	IRON				
10/03/84	1004	5050		1A	8.0	--	--	--	0.00	T	0.00	T	--	--		--		
	1005	5050	231			--	--	--	0.12	T	0.04	T	--	--	0.02	T		
02/27/85	1000	5050		151	43.0F	--	--	--	0.00	T	0.00	T	--	--				
	1005	5050			7.6	--	--	--	0.23	T	0.01	T	--	--	0.01	T		
05/15/85	0405	4050		1A	4.0F	--	--	--	0.00	T	0.00	T	--	--				
	0405	4050	1A		7.7	--	--	--	0.12	T	0.01	T	--	--	0.00	T		
			F3	1220.01		KLAMATH R A ORLEANS								F05C2				
08/14/85	0805	5050		21.0C		--	--	--	0.00	T	0.00	T	--	--		--		
	0805	5050	10A		F+2	--	--	--	0.29	T	0.04	T	--	--	0.02	T		
			F3	1327.00		KLAMATH R A R T CREEK								F05C1				
05/14/85	2010	5050		154	48.0F	--	--	--	0.00	T	0.00	T	--	--		--		
	2010	5050			F+2	--	--	--	0.18	T	0.01	T	--	--	0.00	T		
08/14/85	1040	5050		22.0C		--	--	--	0.00	T	0.00	T	--	--		--		
	1040	5050	202		F+3	--	--	--	0.24	T	0.05	T	--	--	0.02	T		
			F3	1430.00		KLAMATH R NR SETAN VLY								F05C2				
05/14/85	1910	5050		1A	50.0F	--	--	--	0.00	T	0.00	T	--	--		--		
	1910	5050			F+2	--	--	--	0.15	T	0.02	T	--	--	0.01	T		
08/14/85	0835	5050		233	21.5C	--	--	--	0.00	T	0.01	T	--	--		--		
	0835	5050			7.9	--	--	--	0.68	T	0.04	T	--	--	0.02	T		
			F3	1460.00		KLAMATH R A SARAH TOTTEN CAMPGROUND								F05C3				
02/26/85	1225	5050		205	41.0C	--	--	--	0.00	T	0.00	T	--	--		--		
	1225	5050			F+2	--	--	--	0.46	T	0.02	T	--	--	0.01	T		
			F3	2320.00		INDIAN C AT MOUTH								F05C2				
02/26/85	1335	5050		112	40.5F	--	--	--	0.00	T	0.00	T	--	--		--		
	1335	5050			F+1	--	--	--	0.47	T	0.01	T	--	--	0.00	T		
05/14/85	2040	5050		107	54.0F	--	--	--	0.00	T	0.00	T	--	--		--		
	2040	5050			7.8	--	--	--	0.23	T	0.01	T	--	--	0.00	T		

TABLE C-3
MISCELLANEOUS ANALYSES OF SURFACE WATER

Lab and Sampler Agency Codes	
5050	<ul style="list-style-type: none"> - California Department of Water Resources
Abbreviations and Constituents	
TIME	<ul style="list-style-type: none"> - Pacific Standard Time on a 24-hour clock
TEMP	<ul style="list-style-type: none"> - Water temperature at time of sampling in degrees Fahrenheit (F) or Celcius (C)
EC	<ul style="list-style-type: none"> - Electrical conductance in microseimens at 25 ° C
DO	<ul style="list-style-type: none"> - Dissolved oxygen content in milligrams per liter
GH	<ul style="list-style-type: none"> - Instantaneous gage height in feet above an established datum
pH	<ul style="list-style-type: none"> - Measure of acidity or alkalinity of water: F = field determination, L = Lab determination
DISCH	<ul style="list-style-type: none"> - Instantaneous discharge in cubic feet per second (E = estimated)
MBAS	<ul style="list-style-type: none"> - Methylene blue active substance (a test for detergent surfactants) in milligrams per liter
DEPTH	<ul style="list-style-type: none"> - Depth in feet at which sample was collected
TURB	<ul style="list-style-type: none"> - Jackson Turbidity Units measured with a Hach Nephelometer, (A), if in the field, (F)
T+L	<ul style="list-style-type: none"> - Tannin and lignin as tannic acid in milligrams per liter
CHLOR	<ul style="list-style-type: none"> - Field determination of residual chlorine in milligrams per liter
O+G	<ul style="list-style-type: none"> - Oil and grease in milligrams per liter
COLOR	<ul style="list-style-type: none"> - True color in color units
SET S	<ul style="list-style-type: none"> - Settleable solids in milliliters per liter (ML/L) and milligrams per liter (MG/L)
BOD	<ul style="list-style-type: none"> - Biochemical oxygen demand in milligrams per liter: B = 5 days
SUS S	<ul style="list-style-type: none"> - Suspended solids in milligrams per liter; 5 = at 105 degrees C
COD	<ul style="list-style-type: none"> - Chemical oxygen demand in milligrams per liter
V SUS S	<ul style="list-style-type: none"> - Volatile suspended solids in milligrams per liter
CYANIDE	<ul style="list-style-type: none"> - Cyanide in milligrams per liter
PHENOLS	<ul style="list-style-type: none"> - Phenols in milligrams per liter
TOC	<ul style="list-style-type: none"> - Total organic carbon in milligrams per liter
DOC	<ul style="list-style-type: none"> - Dissolved organic carbon in milligrams per liter
IODIDE	<ul style="list-style-type: none"> - Iodide in milligrams per liter
T ODOR	<ul style="list-style-type: none"> - Threshold odor number at 60 degrees C
BROMIDE	<ul style="list-style-type: none"> - Bromide in milligrams per liter
SULFITE	<ul style="list-style-type: none"> - Sulfite in milligrams per liter
T SULF	<ul style="list-style-type: none"> - Total sulfides in milligrams per liter
D SULF	<ul style="list-style-type: none"> - Dissolved sulfides in milligrams per liter
CC EXT	<ul style="list-style-type: none"> - Carbon chloroform extract
CA EXT	<ul style="list-style-type: none"> - Carbon alcohol extract

TABLE C-3
HISTORICAL ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE LAB	TEMP EC	DO P.M.	F-DO L-DO	DISCH HR/SEC	DEPTH METERS	TURB NTU	CHLOR PPM	OXY PPM	COLDP PPM	HC/L	SET S			BOD PPM	CNE PPM	CYANINE PPM	PHENOLS PPM	TOC PPM	TODC PPM	TOD PPM	DOD PPM	DOD PPM	T SULF PPM	T SULF PPM	T SULF PPM	CC EXT
												800 SUSP PPM	1000 SUSP PPM	V SUSP PPM													
10/23/84 1430	F2 5050	10.60.00 12.0C 10.4	0.4	--	SHASTA R AR YREKA	--	--	--	--	--	--	0.3 R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/18/84 0945	5050	4.5C 12.0	0.4	--	--	--	--	--	--	--	--	4	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
05/08/85 1315	5050	14.0C 17.0	0.5	--	--	--	--	--	--	--	--	5	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
08/21/85 0620	5050	17.00	--	--	--	--	--	--	--	--	--	1.0 R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/10/85 1125	5050	14.0C 0.5	0.4	--	--	--	--	--	--	--	--	2.2 R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	F2 1055.00				SHASTA R AR YREKA C																						
02/27/85 1220	5050	4.5C 12.0	0.3	240 E	--	--	--	--	--	--	--	12	5	4	--	--	--	--	--	--	--	--	--	--	--	--	
04/16/85 1105	5050	16.0C 11.1	0.2	150 E	--	--	--	--	--	--	--	5	5	3	--	--	--	--	--	--	--	--	--	--	--	--	
06/13/85 1040	5050	23.0C 4.7	0.3	--	--	--	--	--	--	--	--	6	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
07/09/85 1125	5050	25.0C 0.6	0.6	42	--	35 E	--	--	--	--	--	8	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
	F2 1350.00				SHASTA R AR GRENADA																						
02/25/85 0940	5050	10.0C 10.0	0.0	130 E	--	--	--	--	--	--	--	2	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
	F2 5250.00				SCOTT R AR FORT JONES																						
11/26/84 1330	5050	4.0C 13.0	7.4	--	--	--	--	--	--	--	--	5.4 R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
05/08/85 1533	5050	14.5C 5.61	--	--	--	--	--	--	--	--	--	1.0 R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
09/10/85 1445	5050	15.5C 2.6	0.4	--	--	--	--	--	--	--	--	1.0 R	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	F3 1200.01				XIAMATH R AR NEW ORLEANS																						
02/27/85 1000	5050	43.0F 12.6	7.6	151	--	--	--	--	--	--	--	4	5	3	--	--	--	--	--	--	--	--	--	--	--	--	
05/15/85 0605	5050	54.0F 10.3	7.7	135	--	--	--	--	--	--	--	0.1 R R	--	--	--	2.8	--	--	--	--	--	--	--	--	--	--	
	F3 1102.00				XIAMATH R AR SALMON RIVER																						
05/15/85 0515	5050	55.0F 10.7	7.9	143	--	--	--	--	--	--	--	4	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
	F3 1327.00				XIAMATH R AR TI CREEK																						
02/27/85 0900	5050	42.0F 12.1	7.5	164	--	--	--	--	--	--	--	4	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
05/15/85 0444	5050	56.0F 10.0	8.0	140	--	--	--	--	--	--	--	4	4	2	--	--	2.5	--	--	--	--	--	--	--	--	--	
08/14/85 0805	5050	21.3C 0.5	0.2	194	--	--	--	--	--	--	--	12	5	5	--	--	--	--	--	--	--	--	--	--	--	--	
	F3 1330.00				XIAMATH R AR DILLON C																						
02/27/85 0845	5050	43.0F 12.1	7.6	181	--	--	--	--	--	--	--	6	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
05/15/85 0400	5050	55.0F 11.7	7.2	140	--	--	--	--	--	--	--	1.3 R	--	--	--	2.7	--	--	--	--	--	--	--	--	--	--	
	F3 1335.00				XIAMATH R AR INDEPENDENCE CREEK																						
02/26/85 1445	5050	42.0F 12.1	7.0	171	--	--	--	--	--	--	--	4	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 2050	5050	56.0F 10.0	8.0	156	--	--	--	--	--	--	--	4	4	3	--	--	--	--	--	--	--	--	--	--	--	--	
	F3 1336.00				XIAMATH R AR PAY FLAT CREEK																						
02/26/85 1403	5050	42.0F 12.1	7.1	184	--	--	--	--	--	--	--	4	5	2	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 2014	5050	57.0F 10.0	8.3	159	--	--	--	--	--	--	--	1.2 R	--	--	--	3.6	--	--	--	--	--	--	--	--	--	--	
08/14/85 1040	5050	32.0C 4.7	0.1	104	--	--	--	--	--	--	--	1.3 R	--	--	--	3.8	--	--	--	--	--	--	--	--	--	--	
	F3 1337.00				XIAMATH R AR HAPPY CAMP																						
05/14/85 1040	5050	42.0F 11.0	7.0	149	--	--	--	--	--	--	--	6	4	3	--	--	3.8	--	--	--	--	--	--	--	--	--	
	F3 1338.00				XIAMATH R AR TIGAN VIVY																						
12/17/84 1545	5050	4.5C 14.0	7.4	123	--	--	--	--	--	--	--	5	4	1	--	--	--	--	--	--	--	--	--	--	--	--	
05/14/85 1910	5050	44.0F 10.0	8.2	144	--	--	--	--	--	--	--	1.5 R	--	--	--	3.7	--	--	--	--	--	--	--	--	--	--	



TABLE C-3 (CONTINUED)
MISCELLANEOUS ANALYSES OF SURFACE WATER

DATE TIME	SAMP LAB	TEMP EC	DO G.M.	F-PH L-PH	DISCH PRAS	DEPTH FT	T+L CHLOR	SET S	O+G ML/L	COLOR ML/L	ROD SUS S	V SUS S	CCO SUS S	CYANIDE PHENOLS	TOC DOC	IODIDE T NODP	BROMIDE SULFITE	T SULF	O SULF	CC EXT						
								KIAMATH R A SARAH TOTTEN CAMPGROUN																		FC5C3
02/26/85 1225	5050 5050	41.0F 205	12.1	R+2	--	--	--	--	--	--	A 5	4	--	--	--	--	--	--	--	--	--	--				
05/14/85 1845	5050 5050	54.0F 14R	9.3	R+2	--	--	--	--	--	--	9 5	2	--	--	--	--	--	--	--	--	--	--				
					KIAMATH R RL IRON GT OM																		FO5C6			
12/16/84 1010	5050 5050	3.0C 177	13.4	7.5	--	--	--	--	--	--	7 5	2	--	--	--	--	--	--	--	--	--	--				
					OILLOON C NR SOMESRAR																		FO5C1			
05/15/85 0405	5050 5050	47.0F 75	11.1	7.6	--	--	--	--	--	--	1 5	1	--	--	0.7	--	--	--	--	--	--	--	--			
					CLEAR C NR HAPPY CAMP																		FO5C1			
05/14/85 2030	5050 5050	52.0F 82	10.1	7.2	--	--	--	--	--	--	1 5	1	--	--	--	--	--	--	--	--	--	--	--			
					INDIAN C AT MOUTH																		FO5C2			
02/26/85 1335	5050 5050	40.5F 112	13.0	R+1	--	--	--	--	--	--	2 5	2	--	--	--	--	--	--	--	--	--	--	--			
05/14/85 2000	5050 5050	54.0F 102	10.0	7.8	--	--	--	--	--	--	1 5	1	--	--	0.8	--	--	--	--	--	--	--	--			
					F3 4100.00 SALMIN R A SOMESRAR																		FO5R1			
10/22/84 1205	5050 5050	10.5C 129	11.5	7.6	--	--	--	--	--	--	0.8 R	--	--	--	--	--	--	--	--	--	--	--	--			
04/15/85 1440	5050 5050	11.0C 6.21	11.6	7.3	--	--	--	--	--	--	6 4	4	--	--	--	--	--	--	--	--	--	--	--			
05/15/85 0535	5050 5050	30.0F 78	10.8	7.3	--	--	--	--	--	--	1.1 R	--	--	--	1.2	--	--	--	--	--	--	--	--			
					F6 3000.01 EEL R MF A R05 R105																			FI102		
04/17/85 1130	5050 5050	13.0C 137	10.6	7.7	--	--	--	--	--	--	4 5	3	--	--	--	--	--	--	--	--	--	--	--			
					F6 3120.01 EEL R MF AR BLACK BUTTE R																			FI1C1		
04/17/85 1310	5050 5050	11.0C 94	11.1	7.6	--	6500 E	--	--	--	--	3 5	2	--	--	--	--	--	--	--	--	--	--	--			
					F6 3200.00 BLACK BUTTE R NR COVELO																			FI1C1		
10/24/84 1140	5050 5050	14.0C 303	10.7	7.9	10 E	--	--	--	--	--	0.9 R	--	--	--	--	--	--	--	--	--	--	--	--			
04/17/85 1329	5050 5050	12.0C 5.82	10.6	7.6	TO E	--	--	--	--	--	0.6 R	--	--	--	--	--	--	--	--	--	--	--	--			
					F6 5279.00 VAN NIJEN R NR APINGEVILLE																			FI1A3		
10/23/84 0915	5050 5050	12.5C 234	11.1	7.9	--	--	--	--	--	--	0.8 R	--	--	--	--	--	--	--	--	--	--	--	--			
04/16/85 1030	5050 5050	13.0C 3.82	11.3	7.5	--	--	--	--	--	--	3 5	2	--	--	--	--	--	--	--	--	--	--	--			
					F7 1100.00 MATTOLE R NR PETROLIA																			FI2C0		
10/23/84 1240	5050 5050	15.5C 257	12.0	R+3	--	--	--	--	--	--	0.5 R	--	--	--	--	--	--	--	--	--	--	--	--			
04/16/85 1349	5050 5050	15.0C 4.79	10.3	R+0	--	--	--	--	--	--	0.3 R	--	--	--	--	--	--	--	--	--	--	--	--			
					F7 5100.00 REAR R A CAPE TOWN																			FI2R0		
10/23/84 1120	5050 5050	15.0C 321	11.5	R+1	1A E	--	--	--	--	--	0.6 R	--	--	--	--	--	--	--	--	--	--	--	--			
04/16/85 1235	5050 5050	14.0C 5.82	10.6	R+0	AO E	--	--	--	--	--	0.4 R	--	--	--	--	--	--	--	--	--	--	--	--			

TABLE C-4
NUTRIENT ANALYSES OF SURFACE WATER

Lab and Sampler Agency Code

5050 - California Department of Water Resources

Abbreviations

TIME	- Pacific Standard Time on a 24-hour clock
GH	- Instantaneous gage height, in feet, above an established datum
Q	- Instantaneous discharge in cubic feet per second
TEMP	- Water temperature at time of sampling in degrees Fahrenheit (F) or Celsius (C)
Depth	- Depth, in feet, when measurement was taken
F EC	- Field determination of electrical conductance in microseimens at 25°C
F PH	- Field determination of acidity or alkalinity
TURB	- Jackson Turbidity Units measured with a Hach Nephelometer, (A), if in the field, (F)
F-CO2	- Field determination of carbon dioxide in milligrams per liter
P ALK	- Field determination of alkalinity (Phenol)
T ALK	- Field determination of alkalinity (Total)

(Nitrogen Series as N)

D N02+N03	- Dissolved nitrite and nitrate
D N02	- Dissolved nitrite
D N03	- Dissolved nitrate
D ORG N	- Dissolved organic nitrogen
T ORG N	- Total organic nitrogen
D NH 3	- Dissolved ammonia
T NH 3	- Total ammonia
T (NH3+ORG N)	- Total ammonia plus organic nitrogen

(Phosphorus Series as P)

DIS.A.H.P04	- Dissolved acid hydrolyzable phosphate
D O-P04	- Dissolved orthophosphate
T O-P04	- Total orthophosphate
D TOT P	- Dissolved total phosphorus
T TOT P	- Total phosphorus

TABLE C-4
NUTRIENT ANALYSES OF SURFACE WATER

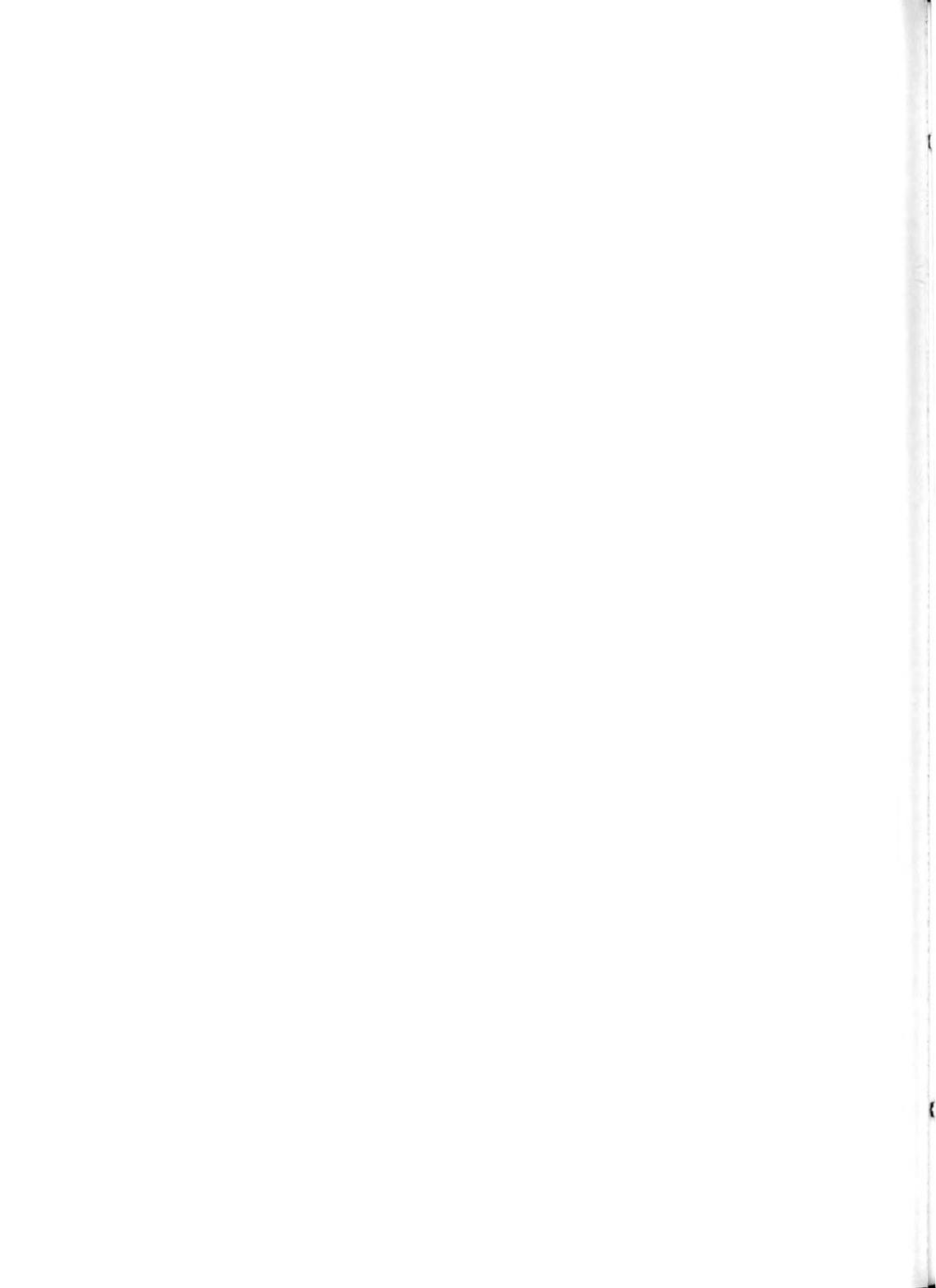
DATE	TIME	STATION	C. H. O.	TEMP	FEC	TURB	FIELD	CONSTITUENTS IN MILLIGRAMS PER LITER										
								D. O.	NH ₃	NH ₄	NH ₂ NO ₂	NH ₂ NO ₃	D. O. T.	D. O. T. N.	T. H. M. S.	D. O. T. S.	D. O. T. P.	D. O. T. N. P.
05/22/85	1000	F2 P 132.3	22.5	25.0C	26A	24F	0.01	--	--	--	0.02	--	--	0.00	--	--	0.03	
	1050			0	A.3							0.6						
05/22/85	1000	F500	12.5C	26F	34F	0.02	--	--	--	0.28	--	1.1	--	0.02	--	0.11		
	1050		4.0	7.9														
06/19/84	1300	F500	17.2C	34F	44F	0.00	--	--	--	0.01	--	0.7	--	0.03	--	0.08		
	1300		0	A.4														
06/19/85	1300	F500	14.5C	30I	54F	0.00	--	--	--	0.08	--	0.7	--	0.03	--	0.12		
	1300		34	A.1														
F2	1650.00	SHASTA P NP YREKA																
10/23/84	1430	F500	3.50	12.0C	47F	44F	0.11	--	--	--	--	--	--	0.10	--	--		
	1430			A.4														
12/14/84	0945	F500	3.74	4.5C	51F	54F	0.32	--	--	--	--	0.3	--	0.11	--	0.16		
	1050		0.95		A.4													
05/08/85	1315	F500	9.07	14.0C	55F	34F	0.01	--	--	--	--	0.6	--	0.22	--	0.26		
	1315		5050		A.4													
06/21/85	0620	F500	2.73	17.0C	61F	24F	0.00	--	--	--	--	--	--	0.13	--	--		
	0620			5050	A.4													
F2	1455.00	SHASTA P AR YREKA C																
02/27/85	1220	F500	9.00	42F	54F	0.18	--	--	--	--	0.4	--	0.11	--	0.15			
	1220		5050	240 E	A.3													
04/16/85	1105	F500	14.0C	57F	34F	0.02	--	--	--	--	0.8	--	0.29	--	0.29			
	1105		5050	150 E	A.2													
06/13/85	1050	F500	23.0C	64F	34F	0.01	--	--	--	--	1.2	--	0.11	--	0.23			
	1050		5050	35 E	A.3													
07/09/85	1125	F500	25.0C	62F	44F	0.00	--	--	--	--	1.0	--	0.15	--	0.23			
	1125		5050	35 E	A.6													
F2	1350.00	SHASTA P NP GRENADA																
02/25/85	0940	F500	4.00	12.0C	42F	24F	0.22	--	--	--	--	0.2	--	0.13	--	0.15		
	1140		5050	130 E	B.0													
03/12/85	1140	F500	9.50	4.37	34F	0.18	--	--	--	--	0.3	--	0.14	--	0.14			
	1140			5050	A.2													
F2	5250.00	SCOTT R NP FORT JONES																
11/26/84	1330	F500	4.00	17F	7.4	0.23	--	--	--	--	--	--	--	0.02	--	--		
	1330		5050															
05/08/85	1533	F500	5.16	14.0C	153	34F	0.12	--	--	--	--	0.2	--	0.01	--	0.02		
	1533		5050	1500	A.1													
09/13/85	1445	F500	4.04	15.0F	28F	14F	0.36	--	--	--	--	--	--	0.00	--	--		
	1445		5050		A.4													
F3 L	1500.00	COPCO L NP COPCO																
05/21/85	1800	F500	10.4C	137	24F	0.00	--	--	--	0.01	--	0.6	--	0.02	--	0.10		
	1800		5050	0	A.3													
05/21/85	1800	F500	10.0F	154	34F	0.30	--	--	--	0.33	--	0.9	--	0.16	--	0.23		
	1800		5050		T.6													
09/19/85	0845	F500	15.2C	200	24F	0.68	--	--	--	0.17	--	1.2	--	0.14	--	0.21		
	0845		5050	0	7.4													
09/19/85	0715	F500	13.0F	208	44F	0.42	--	--	--	0.60	--	1.8	--	0.22	--	0.35		
	0715		5050	15	A.4													
F3 P	1500.00	10N94226.1																
05/22/85	0745	F500	14.0C	131	34F	0.00	--	--	--	0.02	--	0.7	--	0.01	--	0.10		
	0745		5050	0	A.4													
05/22/85	0745	F500	15.1C	135	34F	0.01	--	--	--	0.02	--	0.5	--	0.02	--	0.07		
	0745		5050	23	A.6													
09/19/85	0715	F500	16.7C	267	34F	0.40	--	--	--	0.21	--	1.0	--	0.15	--	0.20		
	0715		5050	0	7.3													
09/19/85	0715	F500	14.7C	263	24F	0.42	--	--	--	0.22	--	1.0	--	0.16	--	0.21		
	0715		5050	15	A.4													
F3 P	1000.00	10N94226.1																
09/05/85	1255	F500	6.72	27.0C	14C	24F	0.00	--	--	--	0.2	--	--	0.01	--	0.03		
	1255		5050		A.4													
F3	1200.00	10N94226.1																
10/03/84	1005	F500	1.37	17.0C	132	24F	0.18	--	--	--	0.6	--	--	--	--	0.12		
	1005		5050		4.0													
10/22/84	1140	F500	2.04	17.0C	174	44F	0.52	--	--	--	0.8	--	--	0.09	--	0.14		
	1140		5050		A.0													
02/27/85	1003	F500	4.37	14.0F	141	44F	0.20	--	--	--	0.3	--	--	0.01	--	0.04		
	1003		5050		T.7													
05/15/85	0605	F500	4.41F	135	14F	0.00	--	--	--	0.1	--	--	0.01	--	0.02			
	0605		5050		7.7													
08/14/85	0940	F500	2.82	27.0C	144	44F	0.00	--	--	--	0.5	--	--	0.04	--	0.08		
	0940		5050		A.3													

TABLE C-4 (CONTINUED)
NUTRIENT ANALYSES OF SURFACE WATER

DATE TIME	SAMPLE	Gauge	Depth	Elev	Elev	THICK	FIELD	PALK	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024	0.4024		
																	TOTAL N								
10/03/94 0500 0900	F3	1332.00					KIWAHATH R AR SALMON RIVER																		
05/15/95 0500 0515			15.00	2.00	7.0	2.0		2.0F	0.22	--	--	--	--	--	--	--	0.9	--	--	--	--	--	0.13		
				55.00F	153	7.0		1AF	0.00	--	--	--	--	--	--	--	0.1	--	--	0.01	--	--	0.02		
	F3	1327.00					KIWAHATH R AR TI CREEK																		
10/03/94 0500 0900			15.50	2.1	7.0	2.0		2AF	0.23	--	--	--	--	--	--	--	0.7	--	--	--	--	--	0.13		
02/27/95 0500 0900				42.00F	144	7.0		4AF	0.27	--	--	--	--	--	--	--	0.2	--	--	0.01	--	--	0.05		
05/15/95 0500 0405				56.00	150	7.0		1AF	0.00	--	--	--	--	--	--	--	0.2	--	--	0.01	--	--	0.02		
08/14/95 0500 0805				21.00F	194	7.0		7AF	0.01	--	--	--	--	--	--	--	1.0	--	--	0.06	--	--	0.12		
	F3	1330.00					KIWAHATH R AR MILLION C																		
02/27/95 0500 0405				43.00F	141	7.0		9AF	0.28	--	--	--	--	--	--	--	0.4	--	--	0.00	--	--	0.05		
05/15/95 0500 0400				44.00F	140	7.0		1AF	0.00	--	--	--	--	--	--	--	0.2	--	--	0.01	--	--	0.03		
	F3	1333.00					KIWAHATH R AR INDEPENDENCE TREE																		
02/26/95 0500 1445				46.00F	171	7.0		4AF	0.31	--	--	--	--	--	--	--	0.2	--	--	0.02	--	--	0.05		
05/14/95 0500 2050				56.00F	150	7.0		2AF	0.00	--	--	--	--	--	--	--	0.2	--	--	0.01	--	--	0.03		
	F3	1336.00					KIWAHATH R AR OAK FLAT CREEK																		
02/26/95 0500 1400				42.00F	185	7.0		5AF	0.35	--	--	--	--	--	--	--	0.3	--	--	0.02	--	--	0.05		
05/14/95 0500 2015				54.00F	170	7.0		2AF	0.00	--	--	--	--	--	--	--	0.2	--	--	0.01	--	--	0.03		
04/14/95 0500 1400				22.00F	266	7.0		8AF	0.01	--	--	--	--	--	--	--	0.0	--	--	0.00	--	--	0.01		
	F3	1324.00					KIWAHATH R AR HAPPY CAMP																		
10/02/94 0500 1310				15.00F	252	7.0		6AF	0.30	--	--	--	--	--	--	--	0.8	--	--	--	--	--	0.19		
05/14/95 0500 1940				49.00F	188	7.0		3AF	0.00	--	--	--	--	--	--	--	0.3	--	--	0.02	--	--	0.05		
	F3	1430.00					KIWAHATH R AR REED VLY																		
10/03/94 0500 1300				16.70F	254	7.0		2AF	0.34	--	--	--	--	--	--	--	0.7	--	--	--	--	--	0.18		
12/17/94 0500 1345				4.50	213	7.0		5AF	0.40	--	--	--	--	--	--	--	1.1	--	--	0.04	--	--	0.09		
05/14/95 0500 1910				52.00F	145	7.0		2AF	0.00	--	--	--	--	--	--	--	0.3	--	--	0.02	--	--	0.04		
09/14/95 0500 0835				24.50F	203	7.0		6AF	0.18	--	--	--	--	--	--	--	0.7	--	--	0.10	--	--	0.15		
	F3	1440.00					KIWAHATH R AR SARAH TOTTEN CAMP GROUN																		
02/26/95 0500 1225				41.00F	205	7.0		6AF	0.51	--	--	--	--	--	--	--	0.4	--	--	0.03	--	--	0.08		
05/14/95 0500 1845				42.00F	146	7.0		2AF	0.30	--	--	--	--	--	--	--	0.2	--	--	0.02	--	--	0.04		
	F3	1450.00					KIWAHATH R AR IRON ST DT																		
12/16/94 0500 1010				3.00	177	7.0		9AF	0.41	--	--	--	--	--	--	--	1.3	--	--	0.06	--	--	0.12		
05/14/95 0500 1345				34.00F	152	7.0		4AF	0.17	--	--	--	--	--	--	--	0.6	--	--	0.06	--	--	0.09		
	F3	1450.00					DELTA C R AR SWEETAR																		
05/15/95 0500 1405				47.00F	74	7.0		6AF	0.00	--	--	--	--	--	--	--	0.3	--	--	0.00	--	--	0.00		
	F3	2324.00					CLEAR C R AR HAPPY CAMP																		
05/14/95 0500 2035				52.00F	72	7.0		1AF	0.00	--	--	--	--	--	--	--	0.0	--	--	0.00	--	--	0.00		
	F3	2324.00					INDIAN C R AR WILTH																		
02/26/95 0500 1335				41.00F	117	7.0		2AF	0.30	--	--	--	--	--	--	--	0.1	--	--	0.00	--	--	0.01		
05/14/95 0500 2035				54.00F	111	7.0		1AF	0.00	--	--	--	--	--	--	--	0.2	--	--	0.00	--	--	0.00		

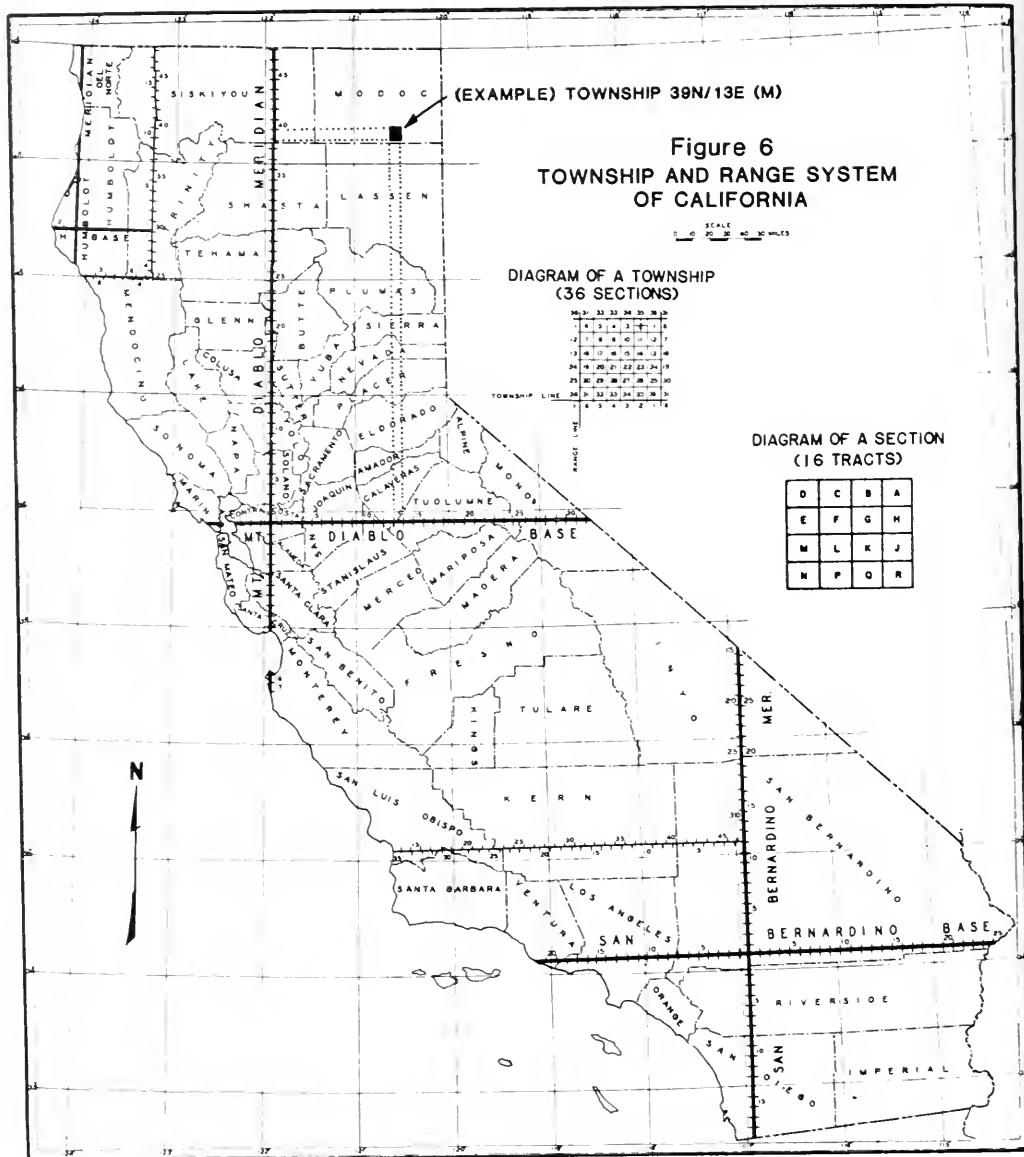
TABLE C-4 (CONTINUED)
NUTRIENT ANALYSES OF SURFACE WATER

DATE	TIME	SAMPLE	G.M.	TEMP	F	EC	TURB	PALK	FIELD			CONSTITUENTS IN MILLIGRAMS PER LITER			D TOX	D NH3	T NH3	DIS	D TOX	D NH3	T NH3	D TOX	D NH3	T NH3	P		
									FPM	FCNT	ALL	NH3+	NH3	NO2	NO2	NO2	NO2	NO2	NO2	NO2	NO2	NO2	NO2	NO2	NO2	NO2	NO2
					</td																						



APPENDIX D

GROUND WATER MEASUREMENTS



APPENDIX D

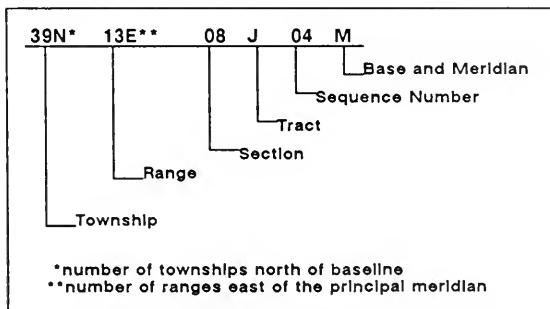
GROUND WATER MEASUREMENTS

Appendix "D" presents depth to water measurements (ground to water) and water surface elevations for selected wells in the North Coastal Area from October 1, 1984 to September 30, 1985.

The location of a well can be approximated by the well number. The numbering system for wells is based on a rectangular system called the United States System of Surveying the Public Lands, commonly referred to as the Public Lands Survey. This system ties all tracts of lands to an initial point and identifies them as being in a particular township. A township is a square parcel of land six miles on each side. Its location is established as being so many six-mile units east or west of a north-south line running through the initial point (called the "principal meridian") and so many six-mile units north or south of an east-west line running through the point (called the "baseline"). The meridional (longitudinal) lines parallel to, and east or west of, the principal meridian are called Range Lines. Latitudinal lines parallel to, and north or south of, the baseline are known as Township Lines. Each township is described with respect to the initial point by its distance (in numbers of six mile units) and direction from that point i.e., north or south and east or west.

Figure 6 presents the township and range system for California, and shows the three bases and meridians: i.e., the Humboldt (H), Mount Diablo (M) and San Bernardino (S). The figure also numbers the townships and ranges along the principal meridians and baselines, and shows the location of, for example, township 39N/13E M. The location of any township in the State can be found by extending the township and range lines as shown.

Every township is further divided into 36 equal parts called sections. A diagram of a typical township with the sections numbered from 1 to 36 is shown on Figure 6. The well numbering system is an extension of the public land survey system and involves dividing each section of land into sixteen 40-acre tracts with each tract given a letter (A through R) to identify it (see also Figure 6.) Sequence numbers in a tract are assigned in chronological order. A typical well number consists of 12 characters expressed as follows:



In the above example, this is the fourth well to be assigned a number in Tract J, Section 8 of the designated township.

Ground water measurement stations are listed in the tables by ascending areal code. The areal code is explained on page 2. Individual areal code numbers can be found in the tables to the left of the areal

names, and the data listed thereunder are in that areal code boundary. The number of ground water stations precludes plotting each individual well on maps in this publication. Instead, Figure 7 shows the location of the ground water basins in which measurements were taken.

To facilitate station location, the cross reference on the following page relates the areal code given in the tables to the ground water basin in which the station is located. The cross reference lists only areas in which measurements were taken.

The date shown in the table is the date when the depth measurement was made.

Some of the measurements in the "ground to water" column may be followed by a single digit in parenthesis which indicates a questionable measurement. The meaning of these codes is as follows:

(0) Caved or deepened	(5) Air or pressure gage measurement
(1) Pumping	(6) Other
(2) Nearby pump operating	(7) Recharge operation at or near well
(3) Casing leaking or wet	(8) Oil in casing
(4) Pumped recently	(9) Acoustic Sounder

When the letters "NM" followed by a digit in parenthesis appears in the column, it means a measurement was attempted but could not be obtained. The reason for no measurement is described by the digit listed below:

(0) Measurement Discontinued	(5) Unable to locate well
(1) Pumping	(6) Well has been destroyed
(2) Pump house locked	(7) Special
(3) Tape hung up	(8) Casing leaking or wet
(4) Cannot get tape in casing	(9) Temporarily inaccessible

The words "FLOW" and "DRY" also appear in this column to indicate a flowing or dry well, respectively. A minus sign preceding the number indicates that the static water level in the flowing well is this distance in feet above the ground surface.

Elevations are given in feet at USGS mean sea level datum, and are usually obtained by interpolation between contours of USGS topographic maps.

The final column is the code number for the agency supplying the data. The code for the California Department of Water Resources is 5050.

**APPENDIX D CROSS REFERENCE;
GROUND WATER BASIN—AREAL CODE**

<u>Ground Water Basin No.</u>	<u>Name</u>	<u>Hydrologic Area*</u>	<u>Areal Code**</u>
1-1	Smith River Plain	<u>SMITH RIVER</u> Lower Smith River Smith River Plain	<u>HU</u> HA HSA
1-3	Butte Valley	<u>KLAMATH RIVER</u> Butte Valley Macdoel-Dorris	<u>HU</u> HA HSA
1-4	Shasta Valley	Shasta Valley	HA
1-5	Scott River Valley	Scott River Scott Valley	HA HSA
1-14	Lower Klamath River Valley	Lower Klamath River Klamath Glen	HA HSA
1-9	Eureka Plain	<u>EUREKA PLAIN</u>	<u>HU</u>
1-10	Eel River Valley	<u>EEL RIVER</u> Lower Eel River Ferndale	<u>HU</u> HA HSA
1-11	Round Valley	Middle Fork Eel River Round Valley	HA HSA
1-12	Laytonville Valley	South Fork Eel River Laytonville	HA HSA
1-42	Sherwood Valley	Upper Main Eel River Outlet Creek	HA HSA
1-26	Redwood Creek Valley	<u>REDWOOD CREEK</u> Orick	<u>HU</u> HA
		<u>TRINIDAD</u> Big Lagoon	<u>HU</u> HA
			F-07.A
			F-08.A

Note: All of the above hydrologic areas are in the North Coast Hydrologic Basin (HB)

- * See page 2
- ** See Figure 2

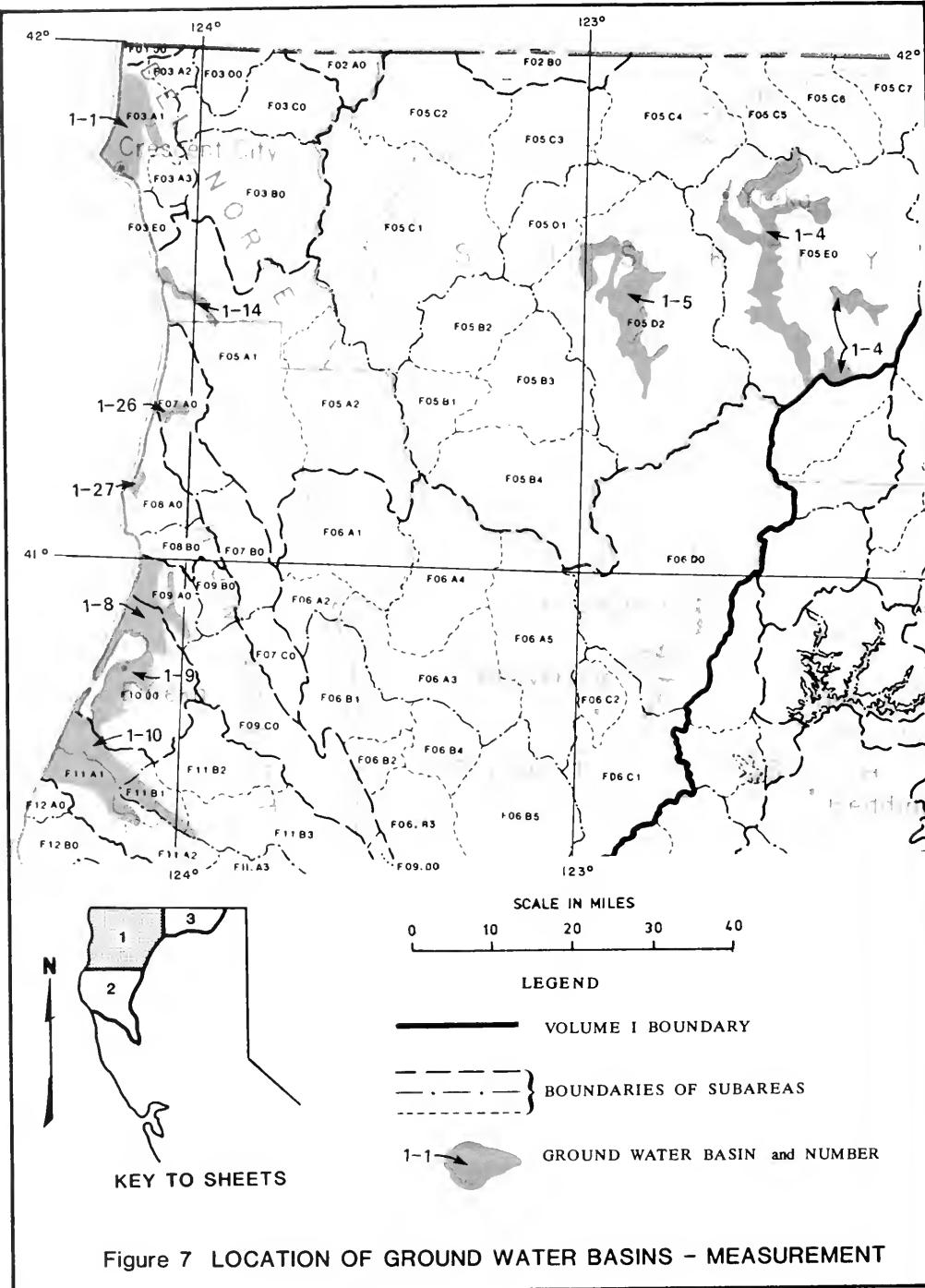


Figure 7 LOCATION OF GROUND WATER BASINS - MEASUREMENT

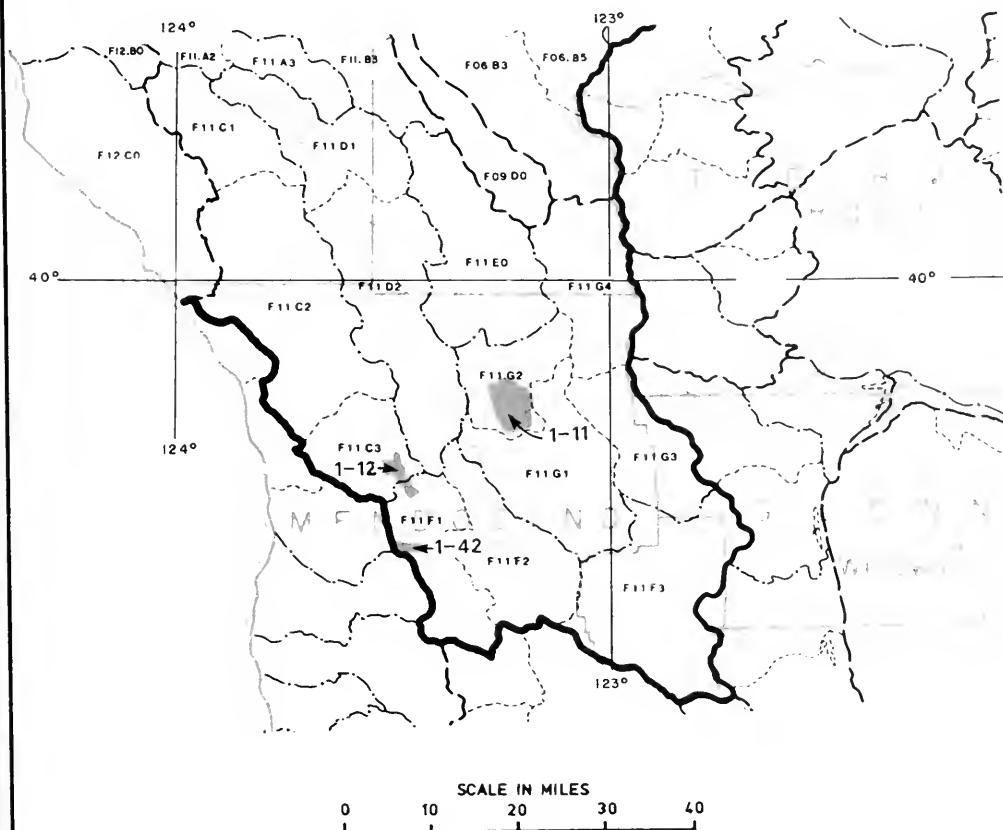
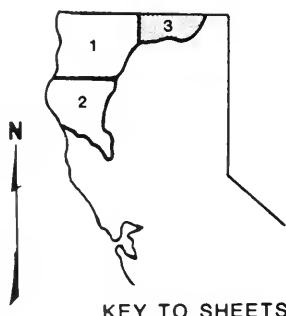
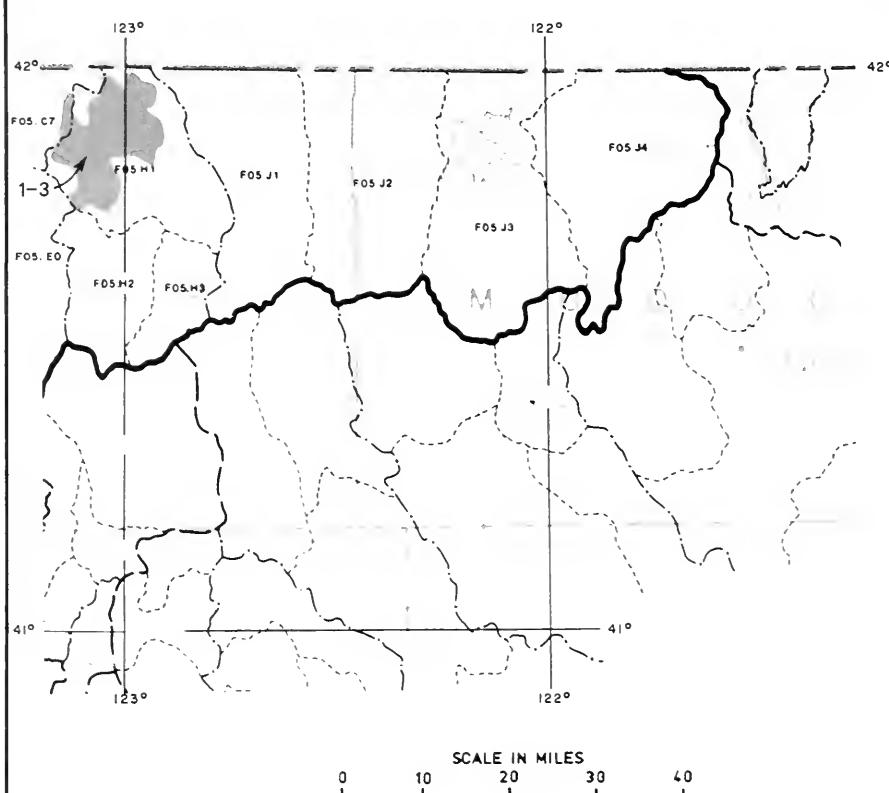


Figure 7 LOCATION OF GROUND WATER BASINS - MEASUREMENT



LEGEND

- VOLUME I BOUNDARY
- - - - - BOUNDARIES OF SUBAREAS
- 1-1 → GROUND WATER BASIN and NUMBER

Figure 7 LOCATION OF GROUND WATER BASINS - MEASUREMENT

TABLE 0
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	GROUND TO WATER	WATER SURFACE AGENCY ELEV.	STATE WELL NUMBER	GROUND SURFACE ELEVATION	GROUND TO WATER	WATER SURFACE AGENCY ELEV.			
F-03	NORTH COAST HR SMITH RIVER MSA	10/29/84 03/13/85	21.4 17.0	24.2 31.0	*050	13N/01E-15001 N	50.0 03/13/85	16.7 16.2	33.3 33.0	5050
F-03,4	INFER SMITH RIVER HA SMITH RIVER PLAIN MSA					F-05 F-05,A F-05,A1	NORTH COAST HR PLAMATH RIVER MSA LOWER PLAMATH RIVER HA PLAMATH GLEN MSA			
F-03,41										
16N/01W-17001 H	48.0	10/29/84 03/13/85	21.4 17.0	24.2 31.0	*050	13N/01E-15001 N	50.0 03/13/85	16.7 16.2	33.3 33.0	5050
17N/01W-12801 H	31.0	10/29/84 03/13/85	19.4 14.1	11.2 16.0	*050	F-05,D F-05,D2	SCOTT RIVER HA SCOTT VALLEY MSA			
17N/01W-15402 H	21.0	10/29/84 03/13/85	12.6 10.4	8.4 13.4	*050	42N/09W-02402 H	274.0 03/13/85	10/30/84 11.0	273.3 273.0	5050
17N/01W-20001 H	09/13/85	44.0			*050	42N/09W-27001 H	293.0 03/15/85	10/30/84 8.0	292.1 292.0	5050
17N/01W-27005 H	40.0	10/29/84 03/13/85	18.5 12.3	21.5 27.7	*050	43N/09W-23F01 H	272.4 03/15/85	10/30/84 6.0 4.4	272.2 272.0	5050
18N/01W-27003 H	15.0	10/29/84 03/13/85	6.7 7.4	8.3 7.6	*050	43N/09W-24F01 H	273.5 03/15/85	10/30/84 11.9	272.1 272.0	5050
18N/01W-35402 H	9C.0	10/29/84 03/13/85	33.0 24.7	56.1 65.3	*050	44N/09W-29P01 H	271.0 03/15/85	10/30/84 15.3	268.2 269.5	5050
						F-05,E	SHASTA VALLEY MSA			
						42N/05W-20J01 H	2882.0 03/14/85	10/30/84 8.2	2873.2 2873.0	5050
						42N/06W-10J01 H	2835.0 03/14/85	10/30/84 7.6	2825.1 2827.4	5050
						43N/05W-11A01 H	2743.0 03/14/85	10/30/84 125.7(8)	2613.4 2614.3	5050
						43N/06W-15F03 H	2663.0 03/14/85	10/30/84 7.7	2650.3 2655.3	5050
						43N/06W-22A01 H	2665.0 03/14/85	10/30/84 9.5	2653.0 2655.9	5050
						43N/06W-33F01 H	2810.0 03/14/85	10/30/84 46.8	2763.0 2763.5	5050
						44N/05W-24H01 H	2637.0 03/14/85	10/30/84 30.0(8)	2608.7 2607.0	5050
						44N/06W-10F01 H	2537.0 03/14/85	10/30/84 27.0	2518.0 2510.0	5050
						44N/06W-27P01 H	2560.0 03/14/85	10/30/84 14.5	2548.2 2545.5	5050
						F-05,H	PUTTE VALLEY MSA			
						F-05,M1	PACODEL-DOPRIS MSA			
						46N/01E-06N01 H	4242.0 03/19/85	10/31/84 25.2	4212.4 4216.8	5050
						46N/01E-07C01 H	4260.0 04/15/85	10/25/84 42.5	4217.4 4217.5	5050
						46N/01E-09P01 H	4250.0 04/15/85	10/25/84 30.2	4218.5 4219.8	5050
						47N/01E-09E01 H	4250.0 04/15/85	10/25/84 94.6(R)	4189.2 4165.4	5050
						47N/01E-06A02 H	4244.5 C3/19/85	10/31/84 38.3	4203.9 4205.2	5050
						47N/01E-20001 H	4243.0 04/15/85	10/25/84 20.3(4)	4204.0 4210.7	5050
						47N/01E-29H02 H		10/25/84 NN=0		5050
								NN=8		
						45N/01W-06A01 H	4258.0 03/19/85	10/31/84 31.7	4226.3	5050
						45N/02W-04R01 H	4280.0 04/15/85	10/25/84 19.9(8)	4234.9 4240.1	5050
						45N/02W-11P01 H	4275.0 03/19/85	10/31/84 43.0	4228.2 4231.1	5050
						46N/01W-11C01 H	4241.0 04/15/85	10/25/84 33.0	4183.1 4207.1	5050
						45N/01W-14H02 H	4238.0 04/15/85	10/25/84 17.3	4219.2 4220.7	5050
						44N/01W-09R01 H	4400.0 04/15/85	10/25/84 180.0	4220.0	5050
						46N/01W-1C.01 H	4363.0 04/15/85	10/25/84 157.5	4202.5 4203.0	5050
						44N/01W-17P01 H	4245.0 03/19/85	10/31/84 34.2	4203.2 4211.0	5050
						45N/01W-17F01 H	4250.0 04/15/85	10/25/84 72.7	4220.9 4227.3	5050
						44N/01W-18C01 H	4247.0 03/19/85	10/31/84 23.7	4217.7 4223.3	5050
						44N/01W-20N01 H	4253.0 04/15/85	10/25/84 32.0	4220.6 4224.0	5050
						44N/01W-20N02 H	4258.0 04/15/85	10/25/84 NN=3	4225.1	5050

TABLE D (CONTINUED)
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	GROUND DATE 44140	WATER SURFACE AGENCY	STATE WELL NUMBER	GROUND SURFACE ELEVATION	GROUND TO WATER	WATER SURFACE ELEV.
F-05	NORTH COAST M	10/25/84	30.8	4220.7	5050		
F-05-4	CLAMAT RIVER M	04/15/84	30.7	4220.3			
F-05-4	RUTTE VALLEY M	04/15/84	30.7	4242.8	5050		
F-05-41	WADDELL-GRADIC M	03/10/85	29.4	4242.5			
46N/01W-31J01 M	4247.0	10/25/84	30.8	4220.7	5050	10/01F-C-001 M	21.0
46N/02W-25H01 M	4242.0	10/25/84	30.2	4242.8	5050	NORTH COAST M	10/29/84
46N/02W-25H01 M	4242.0	04/15/84	30.2	4242.8	5050	RENARD CREEK M	03/13/85
46N/02W-25H02 M	4256.0	10/25/84	35.4	4219.1	5050	F-07	170.0
46N/02W-25H02 M	4256.0	03/10/85	29.4	4226.6		F-07-A	10/29/84
46N/02W-26L02 M	4249.0	10/25/84	31.8	4235.2	5050	46N/01W-C-001 M	12.3
46N/02W-26L02 M	4249.0	04/15/84	30.0	4230.0		03/13/85	12.3
46N/02W-26L03 M	4254.0	10/25/84	30.5	4237.5	5050		15.0
46N/02W-26L03 M	4254.0	03/10/85	33.0	4240.1			13.7
46N/02W-34H07 M	4300.0	10/25/84	52.3 (A)	4247.7	5050		6.0
46N/02W-34H07 M	4300.0	04/15/85	53.4 (A)	4246.2			7.3
46N/02W-35G01 M	4224.0	10/25/84	24.1	4230.0	5050		5050
46N/02W-35G01 M	4224.0	04/15/85	19.0	4236.0			
46N/02W-35G01 M	4260.0	10/25/84	30.0	4230.0	5050		
46N/02W-35G01 M	4260.0	04/15/85	24.3 (A)	4235.7			
47N/01W-02J01 M	4240.0	10/25/84	40.5 (A)	4190.4	5050		
47N/01W-02J01 M	4240.0	04/15/85	32.0 (A)	4204.0			
47N/01W-04H03 M	4274.0	10/31/84	5.5	4236.0	5050		
47N/01W-04H03 M	4274.0	03/10/85	1.2	4235.3			
47N/01W-04H02 M	4274.0	10/31/84	7.2	4234.3	5050		
47N/01W-04H02 M	4274.0	03/10/85	1.2	4235.3			
47N/01W-13C01 M	4274.0	10/25/84	21.5	4234.5	5050		
47N/01W-13C01 M	4274.0	04/15/85	20.0	4220.0			
47N/01W-13H01 M	4234.0	10/25/84	12.0	4222.2	5050		
47N/01W-13H01 M	4234.0	04/15/85	17.3	4222.7			
47N/01W-19L01 M	4238.0	10/31/84	4.3	4233.7	5050		
47N/01W-19L01 M	4238.0	03/10/85	4.0	4234.0			
47N/01W-23H01 M	4235.0	10/25/84	10.7	4224.3	5050		
47N/01W-23H01 M	4235.0	04/15/85	10.2	4224.4			
47N/01W-23H02 M	4233.0	10/25/84	19.8	4217.5	5050		
47N/01W-23H02 M	4233.0	04/15/85	15.1	4219.0			
47N/01W-23H03 M	4237.0	10/25/84	4.5	4224.4	5050		
47N/01W-23H03 M	4237.0	04/15/85	12.0	4224.4			
47N/01W-27H01 M	4233.0	10/31/84	9.3	4224.7	5050		
47N/01W-27H01 M	4233.0	03/10/85	9.0	4224.1			
47N/01W-34G01 M	4237.0	10/31/84	27.4 (A)	4209.2	5050		
47N/01W-34G01 M	4237.0	03/10/85	27.0 (A)	4214.1			
47N/01W-35L01 M	4235.0	10/25/84	15.1 (A)	4218.9	5050		
47N/01W-35L01 M	4235.0	04/15/85	15.1	4219.0			
47N/01W-21A01 M	4240.0	10/25/84	8.0	4230.3	5050		
47N/01W-21A01 M	4240.0	04/15/85	7.7 (A)	4230.3			
47N/02W-22H01 M	4235.0	10/25/84	17.1	4227.9	5050		
47N/02W-22H01 M	4235.0	04/15/85	12.8	4237.2			
47N/02W-23L01 M	4230.0	10/25/84	13.5 (A)	4225.2	5050		
47N/02W-23L01 M	4230.0	04/15/85	11.0	4224.0			
47N/01W-25P01 M	4241.0	10/25/84	7.1	4199.2	5050		
47N/01W-25P01 M	4241.0	04/15/85	6.2	4171.3			
47N/01W-26E01 M	4250.0	10/25/84	53.0 (A)	4106.0	5050		
47N/01W-26E01 M	4250.0	04/15/85	54.7 (A)	4205.0			
47N/01W-28F01 M	4247.0	10/25/84	14.1	4223.4	5050		
47N/01W-28F01 M	4247.0	04/15/85	23.8	4223.4			
47N/01W-28J01 M	4258.0	10/25/84	4.3	4211.0	5050		
47N/01W-28J01 M	4258.0	04/15/85	3.2	4217.6			
47N/01W-28J02 M	4258.0	10/25/84	4.2	4217.9	5050		
47N/01W-28J02 M	4258.0	04/15/85	3.5	4214.2			
47N/01W-34H01 M	4210.0	10/25/84	51.4	4164.6	5050		
47N/01W-34H01 M	4210.0	04/15/85	53.6	4202.4			
47N/01W-34H02 M	4210.0	10/25/84	7.1	4203.5	5050		
47N/01W-34H02 M	4210.0	04/15/85	8.2	4227.4			
47N/01W-34H02 M	4210.0	10/25/84	4.5 (A)	4209.0	5050		
47N/01W-34H02 M	4210.0	04/15/85	4.3	4194.1			

TABLE D (CONTINUED)
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE AGENCY ELEV.	STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE AGENCY ELEV.
F NORTH COAST HN F-08 TRINIDAD HN F-08.A BIG LAGOON HN					F NORTH COAST HN F-10 EUREKA PLAIN HN				
09N/01W-24C01 H	105.0	10/29/84	27.8	77.2 5050	06N/01E-07H01 H	11.0	10/24/84	7.5	3.5 5050
	03/13/85		23.2	81.8		33/13/85		4.8	6.4
					06N/01E-17001 H	21.0	10/24/84	15.6	5.4 5050
						03/13/85		10.3	10.7
					06N/01E-19001 H	19.0	10/24/84	13.5	5.5 5050
						03/13/85		9.8	9.2
					04N/01W-16H01 H	10.0	10/24/84	1A.0(4)	-A.0 4050
						33/13/85		16.0	-8.0

TABLE D (CONTINUED)
GROUND WATER LEVELS AT WELLS

STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE AGENCY	STATE WELL NUMBER	GROUND SURFACE ELEVATION	DATE	GROUND TO WATER	WATER SURFACE AGENCY
NORTH COAST HR									
F-11 F-11-A F-11-A1	ELK RIVER MIA INNER CED. RIVER MIA PEPPERDALE MSA								
02N/01W-6W01 H	34.0	10/24/84 03/12/85	23.6 14.7	10 ⁴ 15.3	5050				
03N/01W-1A001 H	15.6	10/24/84 03/12/85	5.0 5.0	9.0 10.0	4050				
03N/01W-3A001 H	15.0	10/24/84 03/12/85	15.3 13.4	-1.3 1.6	5050				
03N/01W-3A001 H	53.0	10/24/84 03/12/85	NW-2 NW-7		4050				
03N/02W-13J01 H	16.0	10/24/84 03/12/85	7.0 5.3	3.0 5.0	4050				
03N/02W-3A002 H	13.0	10/24/84 03/12/85	13.1 6.3	2.0 6.7	4050				
F-11-C F-11-C3	SOUTH FORK EEL RIVER MIA LAYTONVILLE LF MSA								
21N/14W-3C001 H	1654.0	10/23/84 03/12/85	16.5 3.8	1671.5 1684.4	5050				
21N/15W-01L02 H	1652.0	10/23/84 03/12/85	20.0 4.0	1662.3 1674.0	5050				
21N/15W-12M02 H	1650.0	10/23/84 03/12/85	17.0 4.8	1613.0 1625.2	5050				
21N/15W-2A001 H	1653.0	10/23/84 03/12/85	13.0 2.4	1640.0 1650.0	4050				
F-11-F F-11-F1	UPPER MATN EEL RIVER MIA MIDLET CREEK MSA								
18N/13W-04L01 H	1340.0	10/23/84 03/12/85	8.2 6	1331.8 1339.4	5050				
18N/13W-17J01 H	1370.0	10/23/84 03/12/85	13.5 3.9	1355.4 1366.1	5050				
18N/13W-18E01 H	1345.0	10/23/84 03/12/85	21.7 19.0	1347.3 1346.0	5050				
18N/13W-20H04 H	1315.0	10/23/84 03/12/85	15.0 1.3	1370.0 1383.7	4050				
19N/13W-32E01 H	1347.0	10/23/84 03/12/85	12.5 5.2	1334.5 1341.4	5050				
19N/13W-32L02 H	1350.0	10/23/84 03/12/85	12.5 5.5	1337.5 1344.5	5050				
19N/13W-32L03 H	1348.0	10/23/84 03/12/85	12.0 4.9	1333.0 1340.1	5050				
F-11-G F-11-G2	MIDDLE FORK EEL RIVER MIA MIND VALLEY MSA								
22N/12W-04R01 H	1351.0	10/23/84 03/12/85	14.0 6.1	1334.1 1344.3	4050				
22N/12W-04E02 H	1395.0	10/23/84 03/12/85	17.6 3.0	1378.4 1391.1	5050				
22N/12W-3H003 H	1370.0	10/23/84 03/12/85	3.0 -6.4	1366.1 1375.5	4050				
22N/12W-17D01 H	1351.0	10/23/84 03/12/85	13.6 5.6	1337.4 1345.1	5050				
22N/13W-01D01 H	1420.0	10/23/84 03/12/85	30.0 4.0	1340.0 1413.1	5050				
22N/13W-17A01 H	1360.0	10/23/84 03/12/85	22.8 7.2	1362.2 1367.4	4050				
22N/14-12A01 H	1400.0	10/23/84 03/12/85	26.7 4.0	1371.1 1361.1	5050				
22N/12W-29E03 H	1360.0	10/23/84 03/12/85	9.0 2.0	1350.1 1366.0	4050				
23N/13W-3hC03 H	1410.0	10/23/84 03/12/85	31.6 10.4	1374.6 1360.5	4050				

APPENDIX E

GROUND WATER QUALITY



APPENDIX E GROUND WATER QUALITY

Appendix E presents the results of mineral analyses of ground water samples collected in the North Coastal Area from October 1, 1984 to September 30, 1985. The number of ground water stations precludes plotting each individual location on a map in this publication. Instead, the location of the basins from which the samples were obtained are shown in Figure 8.

The well data are grouped by areal code. The areal code is explained on page 2. Individual areal code numbers can be found in the tables to the left of the areal names. The wells listed thereunder are in that areal code boundary. Each new code is in ascending order. To facilitate station location, a cross reference on the following page relates the areal code given in the tables to the ground water basin in which the station is located.

The location of a well can be approximated by the well number. The numbering system for the wells is based on township, range, and section subdivisions of the public land survey as described in Appendix D, page 67.

In order to increase the amount of information in the water quality tables, multiple headings are used at the top of the column, and data are tabulated respectively. For example, the first column of Table E shows the date of sampling printed above the time of sampling so the data are tabulated in that order. If a part of the values for a multiple heading column are obtained, they will appear in the column with respect to the heading positions. If dashes (or no data) appear in a column, it means no data was obtained.

Abbreviations and codes used in the table are explained on page 84.

**APPENDIX E CROSS REFERENCE;
GROUND WATER BASIN—AREAL CODE**

<u>Ground Water Basin</u>	<u>Name</u>	<u>Hydrologic Area*</u>	<u>HU</u>	<u>HA</u>	<u>HSA</u>	<u>Areal Code**</u>
1-1	Smith River Plain	<u>SMITH RIVER</u> Lower Smith River Smith River Plain	<u>HU</u> HA HSA			F-03.A1
1-3	Butte Valley	<u>KLAMATH RIVER</u> Butte Valley Macdoel-Dorris	<u>HU</u> HA HSA			F-05.H1
1-4	Shasta Valley	Shasta Valley	HA			F-05.E
1-5	Scott River Valley	Scott River Scott Valley	HA HSA			F-05.D2
1-6	Hayfork Valley	<u>TRINITY RIVER</u> South Fork Trinity River	<u>HU</u> HA HSA			F-06.B5
1-8	Mad River Valley	<u>MAD RIVER</u> Blue Lake	<u>HU</u> HA			F-09.A
1-9	Eureka Plain	<u>EUREKA PLAIN</u>	<u>HU</u>			F-10
1-10	Eel River Valley	<u>EEL RIVER</u> Lower Eel River Ferndale	<u>HU</u> HA HSA			F-11.A1
1-11	Round Valley	Middle Fork Eel River Round Valley	HA HSA			F-11.G2
1-12	Laytonville Valley	South Fork Eel River Laytonville	HA HSA			F-11.C3
1-42	Sherwood Valley	Upper Main Eel River Outlet Creek	HA HSA			F-11.F1

Note: All of the above hydrologic areas are in the North Coast Hydrologic Basin (HB).

*See page 2.

**See Figure 2.

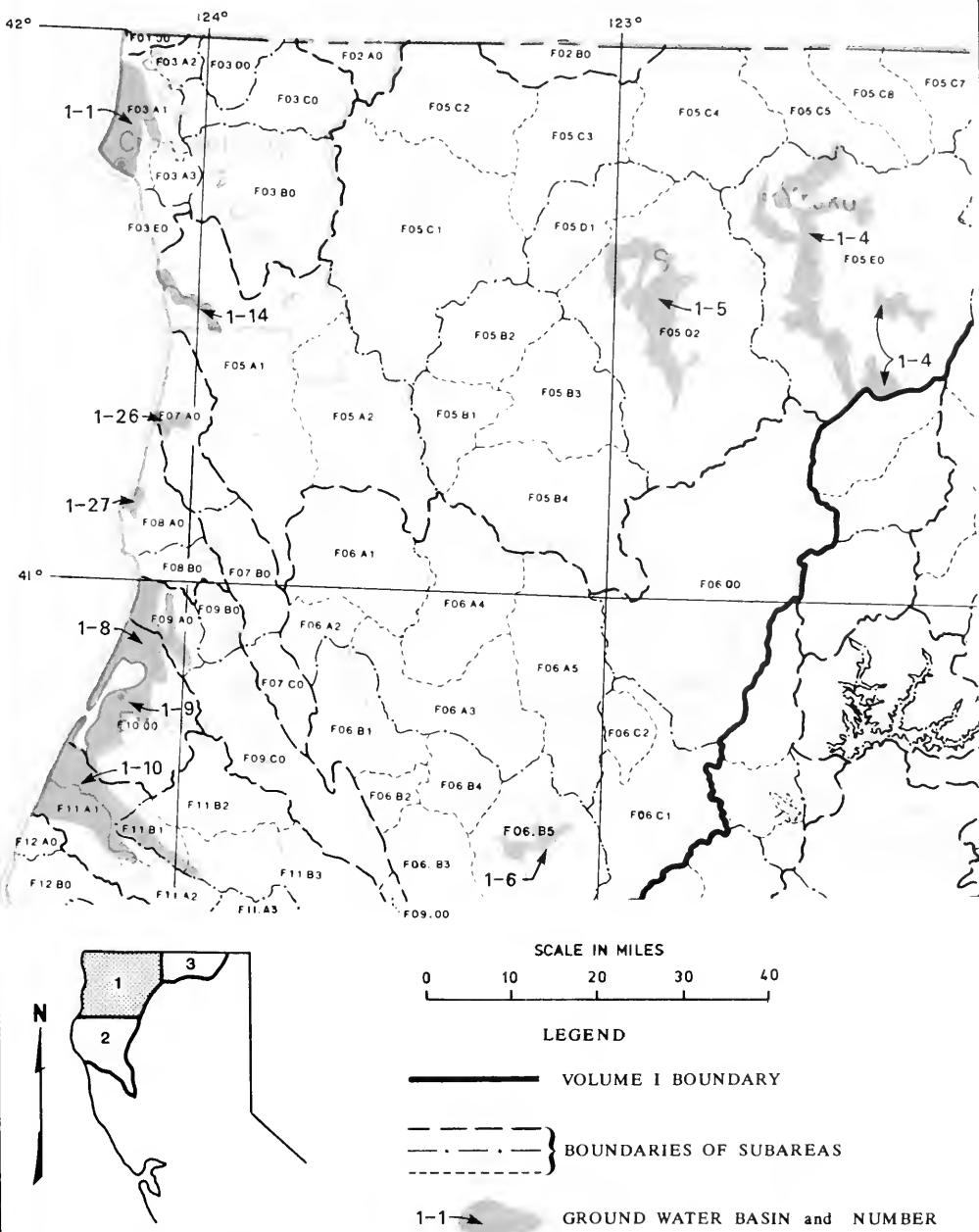
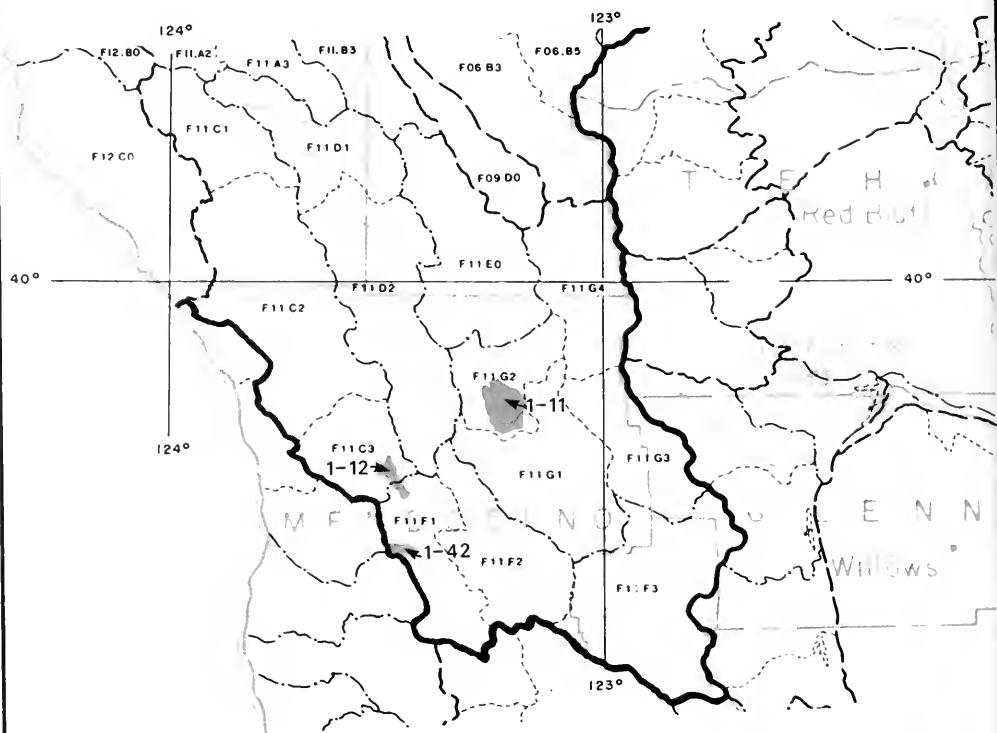
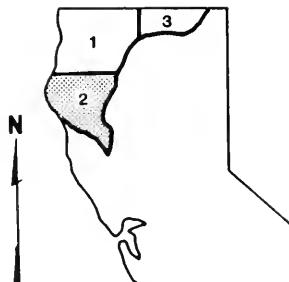


Figure 8 LOCATION OF GROUND WATER BASINS - QUALITY



SCALE IN MILES

0 10 20 30 40



LEGEND

— VOLUME I BOUNDARY

— - - } BOUNDARIES OF SUBAREAS

1-1 GROUND WATER BASIN and NUMBER

Figure 8 LOCATION OF GROUND WATER BASINS - QUALITY

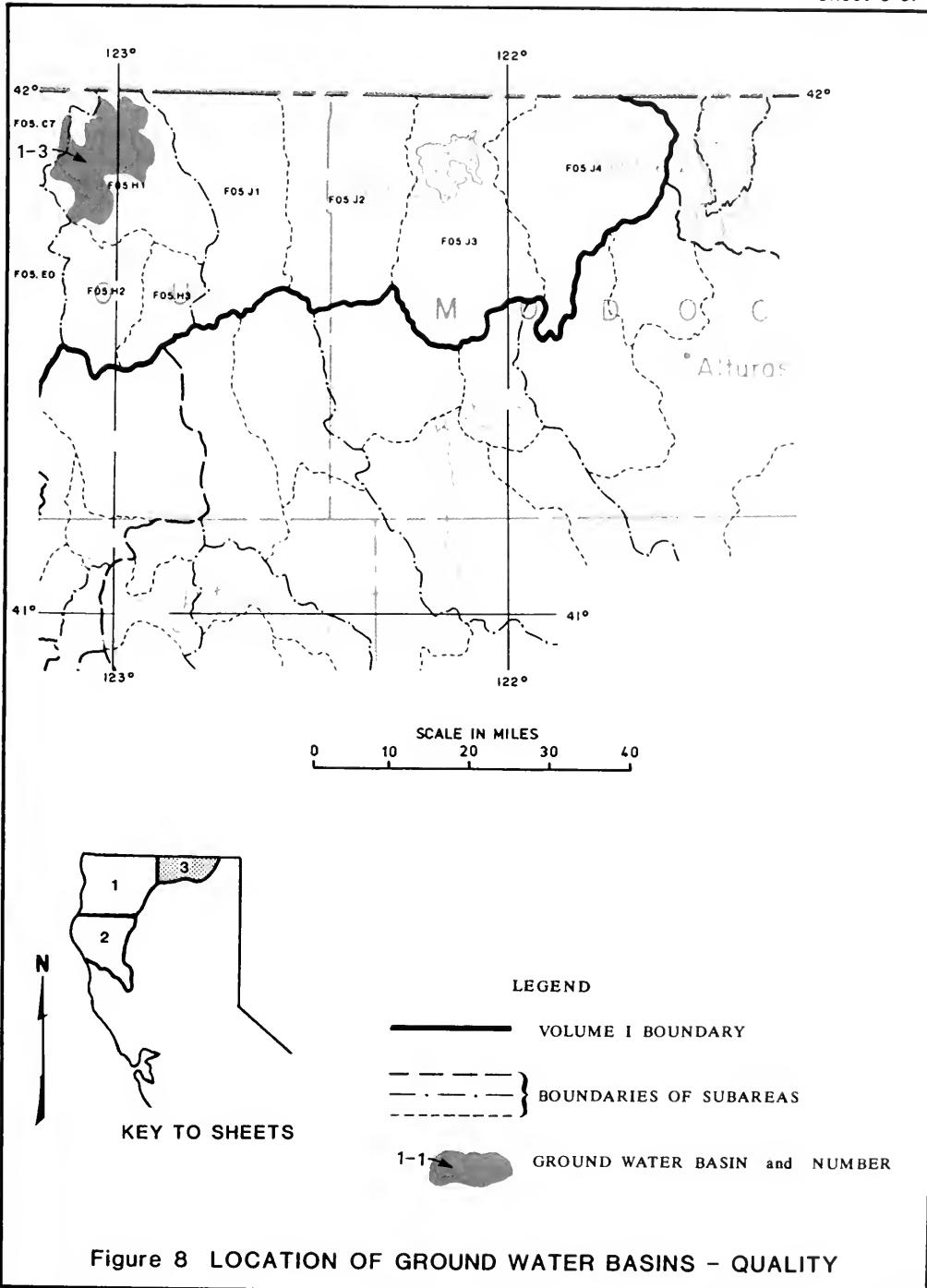


Figure 8 LOCATION OF GROUND WATER BASINS - QUALITY

TABLE E
MINERAL ANALYSES OF GROUND WATER

Lab and Sampler Agency Code

5050 – Department of Water Resources

Abbreviations and Constituents

TIME	– Pacific Standard Time on a 24-hour clock					
G. H.	– Instantaneous gage height in feet above an established datum					
Q	– Instantaneous discharge in cubic feet per second (E = Estimated)					
DO	– Dissolved oxygen content in milligrams per liter					
SAT	– Percent of normal dissolved oxygen saturation					
TEMP	– Water temperature at time of sampling in degrees Fahrenheit (F) or Celsius (C)					
Field	– Determined in the field					
Laboratory	– Determined in the laboratory					
pH	– Measure of acidity or alkalinity of water					
EC	– Electrical conductance in microseimemens at 25°C					
Constituents:	B	– Boron	K	–	Potasium	
	CA	– Calcium	MG	–	Magnesium	
	CACO ₃	– Calcium Carbonate	NA	–	Sodium	
	CL	– Chloride	NO ₃	–	Nitrate	
	F	– Fluoride	SIO ₂	–	Silica	
			SO ₄	–	Sulfate	

Boron, Fluoride, and Silica are reported in milligrams per liter. The other minerals are reported in each of three units: milligrams per liter, milliequivalents per liter, and percent reactance value; accordingly, each observation can use three lines of tabulation.

MILLIEQUIVALENTS PER LITER is the concentration in Mg/l divided by the equivalent weight of the ion.

PERCENT REACTANCE VALUE is determined by dividing the sum of the cations or anions in milliequivalents per liter into each constituent in milliequivalents per liter, arriving at a percentage.

TURB	– Jackson Turbidity Units measured with a Hach Nephelometer (A), if in the field (F)
TDS	– Gravimetric determination of total dissolved solids at 180°C (value followed by * is a determination of 105°C)
SUM	– Total dissolved solids by summation of analyzed constituents minus 40 percent of carbonate weight
TH	– Total Hardness
NCH	– Noncarbonate hardness – any excess of total hardness over total alkalinity Adjusted sodium absorption ratio
SAR	– Sodium Absorption ratio
ASAR	– Adjusted sodium adsorption ratio
REM	– Remarks; code letter are: T – Total dissolved solids and the calculated sum of constituents are not within 20 percent of each other. S – The anion sum and cation sum for a complete analysis is not within the prescribed tolerance of \pm 5 percent. X – The field EC and the lab EC are not within 20 percent of each other.

TABLE E
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP FIELD PA EC	FIELD LABORATORY	MINERAL CONSTITUENTS IN PPM	MILLIGRAMS PER LITER				MILLIGRAMS PER LITER								
					CA	MG	NA	+	PERCENT PRECIPITATION VALUE CACO ₃	304	8	F	TDS	TH	SAR	REY	
16N/01w-200203 H																	
10/10/84 1430	5050 0000	50.0F 14.4C	7.0 6.1	277 242	19 +9	12 +9	1A +70	5 .01	109 2.18	1.0 .02	11 .31	1.7 .03	+.0 --	1.7 127	97 0	0.7 1.1	T
09/17/85 0810	5050 0000	50 F 14 C	7.0	262	--	--	--	--	--	--	--	--	--	--	--		
15N/01w-20401 H																	
10/10/84 1340	5050 0000	50.0F 13.9C	6.8	192	--	--	--	--	--	--	--	--	--	--	--		
09/17/85 0735	5050 0000	50.0F 14.4C	6.3 6.2	193 192	5.0 +25	12 +59	13 +57	--	53 1.00	--	13 .51	3.8 .14	--	--	62 12	0.7 0.7	S
164/02w-13E01 H																	
10/10/84 1430	5050 0000	50.0F 15.0C	6.8	370	--	--	--	--	--	--	--	--	--	--			
09/17/85 0735	5050 0000	50 F 14 C	6.2	322	--	--	--	--	--	--	--	--	--	--			
174/01w-14C02 H																	
09/17/85 0940	5050 5050	50.0F 15.0C	7.0 6.4	210 209	4.0 +20	21 1.73	6.0 +25	--	91 1.62	--	9.0 .25	3.8 .06	--	--	95 5	0.3 0.4	S
184/01w-34E02 H																	
09/17/85 0920	5050 0000	50 F 14 C	7.0	395	--	--	--	--	--	--	--	--	--	--			
F-05 F-05.0 F-05.02 424/03w-27K01 H																	
07/08/85 1350	5050 5050	50.0F 10.3C	6.1 6.3	70 +35	7.0 +35	2.0 +15	3.0 +13	+.4 +.01	27 +.54	1.0 .04	1.0 +.03	+.2 +.05	+.0 0	42 31	26 0	0.3 0.1	E
42N/09w-29A02 H																	
07/08/85 1330	5050 0000	62.0F 16.7C	7.1	167	--	--	--	--	--	--	--	--	--	--			
43N/09w-02E01 H																	
07/08/85 1125	5050 0000	64.0F 17.8C	7.1	540	--	--	--	--	--	--	--	--	--	--			
43N/09w-03H01 H																	
07/08/95 1255	5050 5050	60.0F 14.5C	5.7 4.0	310 250	25 1.25	8.3 +.6	11 +.02	+.9 1.59	29 1.68	10 .21	2.0 .06	+.0 .30	+.0 0	144 116	96 0	0.5 0.7	E
43N/09w-29G02 H																	
07/08/85 1200	5050 0000	64.0F 17.8C	5.3	68	--	--	--	--	--	--	--	--	--	--			
43N/10w-11E01 H																	
07/08/85 1225	5050 0000	59.0F 15.0C	5.0	92	--	--	--	--	--	--	--	--	--	--			
44N/02w-34E01 H																	
07/09/85 1140	5050 5050	73.0F 22.9C	5.9 4.3	320 305	39 1.95	14 +15	6.0 +.26	--	134 2.68	--	2.0 .06	15.0 .24	--	--	155 21	0.2 0.4	S
F-05.E SHASTA VALLEY HSA																	
42N/05w-20F01 H																	
07/09/85 0950	5050 0000	69.0F 20.0C	5.8	740	--	--	--	--	--	--	--	--	--	--			
42N/05w-20J01 H																	
07/09/85 1125	5050 0000	61.0F 16.1C	7.1	285	--	--	--	--	--	--	--	--	--	--			
42N/06w-10J01 H																	
07/09/85 1100	5050 0000	51.0F 16.1C	7.3	545	--	--	--	--	--	--	--	--	--	--			
43N/05w-02C01 H																	
07/09/85 1300	5050 0000	54.0F 12.2C	5.8	235	--	--	--	--	--	--	--	--	--	--			

TABLE E (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

TABLE E (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

TABLE E (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP PH	FIELD LABORATORY EC	MINERAL CONSTITUENTS IN CA MG NA K CACO ₃	MILLIGRAMS PER LITER		MILLIGRAMS PER LITER		B CL 504 NO3 TURB SUM WCH	F F SI02 TO5 TH ASAR	RE4								
					PERCENT REACTANCE 504	VALUE CL	PERCENT REACTANCE 504	VALUE CL											
F-10 NORTH COAST HB EUREKA PLAIN MU																			
054/01E-20001 H																			
10/11/84 1030	5050 0000	55.0F 12.8C	7.1	300	--	--	--	--	--	--	--	\$							
08/28/85 1030	5050 0000	55.0F 12.8C	6.9	300	--	--	--	--	--	--	--	\$							
064/01E-07M01 H																			
10/11/84 0930	5050 0000	62.0F 16.7C	6.8	478	--	--	--	--	--	--	--	\$							
09/28/85 0750	5050 5050	60.0F 15.5C	6.8	460 442	2.00	2.14	--	--	--	24 .68	--	207 \$							
064/01E-17001 H																			
08/28/85 0810	5050 0000	55.0F 12.8C	6.4	420	--	--	--	--	--	--	--	\$							
064/01E-18M02 H																			
08/28/85 0830	5050 0000	56.0F 13.3C	6.9	740	--	--	--	--	--	--	--	\$							
064/01E-19001 H																			
10/11/84 1000	5050 0000	55.0F 12.8C	7.4	395	--	--	--	--	--	--	--	\$							
09/28/85 0845	5050 0000	55.0F 12.8C	7.3	390	--	--	--	--	--	--	--	\$							
064/01E-30M01 H																			
10/11/84 1010	5050 0000	58.0F 14.4C	7.3	390	--	--	--	--	--	--	--	\$							
08/28/85 0905	5050 0000	57.0F 13.9C	7.3	400	--	--	--	--	--	--	--	\$							
04W/01W-08P01 H																			
10/11/84 1250	5050 0000	65.0F 18.3C	7.7	160	--	--	--	--	--	--	--	\$							
04W/01W-16H01 H																			
10/11/84 1210	5050 0000	59.0F 15.0C	7.5	435	--	--	--	--	--	--	--	\$							
08/28/85 1240	5050 0000	59.0F 15.0C	7.6	430	--	--	--	--	--	--	--	\$							
04W/01W-17801 H																			
10/11/84 1300	5050 0000	54.0F 12.2C	7.3	155	--	--	--	--	--	--	--	\$							
08/28/85 1225	5050 0000	53.0F 11.7C	7.3	155	--	--	--	--	--	--	--	\$							
054/01W-29X31 H																			
10/11/84 1120	5050 0000	55.0F 12.8C	7.1	263	--	--	--	--	--	--	--	\$							
09/28/85 1105	5050 0000	50.0F 10.0C	6.4	315	--	--	--	--	--	--	--	\$							
06W/01W-36C01 H																			
10/11/84 1020	5050 0000	57.0F 13.9C	7.2	440	--	--	--	--	--	--	--	\$							
08/28/85 0920	5050 0000	56.0F 13.3C	7.2	440	--	--	--	--	--	--	--	\$							
F-11 F-11.A F-11.A1 32W/01W-32L01 H																			
10/11/84 1440	5050 0000	61.0F 16.1C	6.8	535	--	--	--	--	--	--	--	\$							
08/28/85 1600	5050 0000	56.0F 13.3C	4.8	570	--	--	--	--	--	--	--	\$							

TABLE E (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE	TIME	SAMPLER	LAB	TEMP	FIELD LABORATORY	MINERAL CONSTITUENTS IN PPM EC	MILLIGRAMS PER LITER				MILLIGRAMS PER LITER													
							CA	MG	NA	K	MILLIEQUIVALENTS PER LITER	PERCENT REACTANCE	VALUE	B	F	TDS	TH	SAR	REI					
CACO ₃																								
NORTH COAST HA																								
EEL RIVER HA																								
LOWER EEL RIVER HA																								
FERNDALE MSA																								
03N/01W-18A01 H																								
10/11/84	1410	5050	0000	66.0F 18.9C	7.3	525	--	--	--	--	--	--	--	--	--	--	--							
08/25/85	1201	5050	0000	63.0F 17.2C	7.5	560	33	38	21	2.6	233	33	14	.1	.6	--	286	239	0.6					
						511	1.65 29	3.13 54	.91	.07	4.66 .61	.69 .12	.39 7	.00 0			281		1.3					
03N/01W-19C01 H																								
10/11/84	1420	5050	0000	57.0F 13.9C	7.1	550	25	35	39	--	219	--	30	--	--	--	207	1.2						
						536	1.25 21	2.98 49	1.70 29	--	4.38		.85				0	2.9						
03N/01W-36G01 H																								
10/11/84	1500	5050	0000	58.0F 14.4C	6.8	640	30	35	38	2.2	208	2.0	64	.7	.0	--	332	219	1.1					
						578	1.50 25	2.88 47	1.65 27	.36 1	4.16 68	.04 1	1.80 30	.08 1			301		2.4					
03N/01W-36G02 H																								
10/11/84	1510	5050	0000	60.0F 15.5C	8.0	850	--	--	--	--	--	--	--	--	--	--	--							
03N/02W-32001 H																								
10/11/84	1610	5050	0000	63.0F 17.2C	7.3	740	--	--	--	--	--	--	--	--	--	--	--							
03N/02W-33M02 H																								
10/11/84	1540	5050	0000	55.0F 12.8C	7.1	700	22	30	72	--	272	--	35	1.5	--	--	179	2.3						
						651	1.10 16	2.47 37	3.13 47	--	5.43		.99 1	.02 25			0	5.0						
03N/02W-33M02 H																								
03/28/85	1500	5050	0000	55.0F 12.8C	7.0	700	--	--	--	--	--	--	--	--	--	--	--							
04N/02W-35E01 H																								
10/11/84	1340	5050	0000	58.0F 14.4C	6.8	415	12	17	37	1.0	44	7.0	87	3.9	.0	--	239	100	1.6					
						410	.60 16	1.40 38	1.61 44	.03 1	4.16 25	.15 4	2.45 69	.06 2			191	56	1.9					
04N/02W-35E02 H																								
08/28/85	1330	5050	0000	53.0F 11.7C	6.7	410	--	--	--	--	--	--	--	--	--	--	--							
F-11.2 F-11.23 214/14*+30M01 H																								
07/26/85	0915	5050	0000	70.0F 21.1C	6.7	215	--	--	--	--	--	--	--	--	--	--	--							
214/15W-01L02 H																								
07/26/85	1000	5050	0000	66.0F 20.0C	7.3	430	--	--	--	--	--	--	--	--	--	--	--							
214/15W-12M02 H																								
07/26/85	0940	5050	0000	62.3F 16.7C	5.9	90	--	--	--	--	--	--	--	--	--	--	--							
F-11.4 F-11.41 104/134+06L01 H																								
07/26/85	0750	5050	0000	63.3F 17.2C	6.3	290	--	--	--	--	--	--	--	--	--	--	--							
15H/13*+20H04 H																								
07/26/85	0750	5050	0000	72.0F 22.2C	7.0	295	--	--	--	--	--	--	--	--	--	--	--							
F-11.6 F-11.62 224/12W-06L02 H																								
07/26/85	1153	5050	0000	60.0F 14.5C	7.3	340	--	--	--	--	--	--	--	--	--	--	--							

TABLE E (CONTINUED)
MINERAL ANALYSES OF GROUND WATER

DATE TIME	SAMPLER LAB	TEMP FIELD LABORATORY	MINERAL CONSTITUENTS IN PPM EC	MILLIGRAMS PER LITER						MILLIGRAMS PER LITER										
				CA	MG	NA	K	CaCO ₃	PERCENT REACTANCE VALUE	SDN	CL	NO ₃	TURB	SiO ₂	SUM	TH	NH ₃	SAR	EC	
F																				
NORTH COAST HB EEL RIVER - MU																				
F-11.0																				
F-11.62																				
WOUND VALLEY - USA																				
224/13w-01J03 *																				
07/26/85 1225	5050 0000	69.0F 20.5C	7.4	230	--	--	--	--	--	--	--	--	--	--	--	--	--			
234/12w-33L03 *																		286		
07/26/85 1215	5050 0000	71.0F 21.6C	7.2	660	65	30	--	.7 .02	--	--	3.0 .08	.0 .00	.1	--	--	--	--	--		
234/13w-13401 *																				
07/26/85 1135	5050 0000	65.0F 18.3C	6.4	190	--	--	--	--	--	--	--	--	--	--	--	--	--			
234/13w-25P01 *																				
07/26/85 1120	5050 0000	71.0F 21.6C	7.3	245	--	--	--	--	--	--	--	--	--	--	--	--	--			
234/13w-3bF03 *																				
07/26/85 1120	5050 0000	71.0F 21.6C	6.6	285	--	--	--	--	--	--	--	--	--	--	--	--	--			
234/13w-3bR03 *																				
07/26/85 1120	5050 0000	71.0F 21.6C	6.8	285	--	--	--	--	--	--	--	--	--	--	--	--	--			

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Inquiries regarding statewide data should be directed to the Division of Planning:

Department of Water Resources
Division of Planning
Statewide Data Coordinator
P. O. Box 942836
Sacramento, CA 94236-0001
(916) 445-7314

State of California—Resources Agency
Department of Water Resources
P.O. Box 942836
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